THE MEDICAL NEWS.

A WEEKLY JOURNAL OF MEDICAL SCIENCE.

VOL. LXXVIII. NEW YORK, SATURDAY, JUNE 29, 1901. No. 26.

ORIGINAL ARTICLES.

THE IMPORTANCE OF A RECOGNITION OF THE SIGNIFICANCE OF EARLY TUBERCULOSIS IN ITS RELATION TO TREATMENT.[1]

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IT would seem almost unnecessary to emphasize the importance of making an early diagnosis in tuberculosis. To reach a positive conclusion before the disease has caused extensive lesions or seriously impaired the patient's resistance, or before a simple tuberculous deposit in the lungs has become complicated with secondary infection, is obviously a matter of vital importance to the patient. The records of the autopsy-table and the clinical results noted in truly incipient cases where intelligent and radical measures are applied at once, bear ample evidence to the curability of the incipient stages of the disease, while the terrible fatality of the malady after it has seriously impaired the general health needs no comment.

The results obtained at sanatoria have demonstrated not only that the disease is curable, but that it is curable in direct proportion to the stage at which the treatment is applied. The published reports of the Adirondack Cottage Sanitarium show conclusively the value of an early diagnosis. During the years 1897-98-99, of 113 incipient cases, 82, or 72 per cent., were discharged from the institution apparently cured, while of 151 advanced cases only 27, or 17.8 per cent., recovered, and not one of 59 far-advanced cases was discharged apparently cured.

No doubt the diagnosis of incipient tuberculosis presents often many difficulties. Our standard as to what constitutes a truly incipient case should constantly be made more rigid. Persistent slight cough, with loss of flesh and strength, a slight afternoon rise of temperature of one-half to three-quarters of a degree, and constant lassitude, are symptoms which even without any appreciable signs on physical examination, point in many cases to incipient tuberculosis, but which are too often disregarded. Perhaps too much importance is attached to the absence of any normal signs in the chest, and the case is not looked upon as being tuberculosis until the stethoscope gives ample evidence of its presence in the lung; and yet we know that often all the rational symptoms of the disease are present long before the lesions can be detected by physical examination; that miliary tubercles in the lung may give no appreciable signs; and that physical examination cannot be expected to detect the onset of tuberculous infection in central portions of the lungs, or in the glands and deep tissues and organs of the body. Search for the bacillus should be begun early and persisted in as long as any doubt as to the diagnosis exists. Much time and zeal is wasted in the meaningless task of counting the number of bacilli as a guide to prognosis which would be employed to better advantage for the patient in searching for the bacillus while the symptoms are still obscure. The microscope has been of invaluable aid in the diagnosis of tuberculosis, and when the bacillus is found there is no appeal from its decision; but its absence from the expectoration is not necessarily a conclusive criterion. We should not wait always until the tubercle bacillus is found, for it is of immense advantage to the patient if a conclusion can be reached before it appears in the expectoration, as this does not occur until ulceration of the tubercles has already taken place. Too much stress is laid upon the negative results of the microscopic examination, and much valuable time lost on this account. I repeatedly see cases, beginning with hemoptysis and some failure of health, even when slight afternoon temperature is present from any cause, with or without some physical signs in the chest, where the patient is assured that he has not tuberculosis because one or two examinations of the expectoration have failed to reveal the presence of the bacillus.

In the great majority of cases a consideration of the history of the case and a careful study of the rational signs, with a thorough physical examination of the chest, and a microscopic examination of any sputum obtainable, aided by a careful X-ray examination of the patient when required, will enable the physician to make an early diagnosis. If this cannot be done the tuberculin test has many times helped me to reach a conclusion, and either to reassure the patient or to insist on prompt and radical measures of treatment without loss of time. It is not often necessary to use it, but its value lies in the fact that it is most applicable and will demonstrate the presence, and give corroborative evidence as to the absence, of a tuberculous process in the body in just that class of incipient cases where the usual methods of diagnosis fail. It is in the detection of incipient tuberculosis that its best field of usefulness lies. Where any marked degree of fever is present it is less reliable, as the balance of the heat-regulating centers in such cases is already disturbed and the injections may cause fluctuations of temperature which may be misleading. In my experience it has proved generally reliable and free from any ill effects, and

[1] Read before the Association of American Physicians, Washington, May 1, 1901.

has many times enabled me to insist on prompt and radical measures of treatment months before a conclusion as to the true nature of the disease could have been reached by the usual methods. Its more general application in the place of the waiting policy so generally resorted to will in skilful hands warn the patient and the physician of the real danger and save many lives.

A diagnosis of truly incipient tuberculosis would no doubt be oftener made if its all-important bearing on the treatment was more fully appreciated. My experience in going over the histories each year of many hundreds of consumptives would lead me to believe that the grave responsibility which rests on the physician of detecting the disease in its very earliest stages and the significance of doing so in relation to successful treatment are not generally realized. In the great majority of cases valuable time (many months and even years) is allowed to elapse since the first symptoms of ill health appeared before the patient is told the nature of his disease and urged to adopt radical measures for its arrest and cure. Too often he is not told that he has tuberculosis until he can no longer be deceived. His disease is labeled grip, pleurisy, bronchitis, or malaria; he is informed that the blood came from his throat; until persistence of the symptoms, rapid emaciation, constant cough, hectic fever and sweats, make the true nature of his malady but too apparent, when he is advised to give up his occupation and make a change of climate or seek admission to a sanitarium, only to find that the proposed change is of little avail, or that he has applied too late and cannot be taken at an institution.

Many patients who come under my observation far advanced in consumption have been advised months previously that they were not *ill enough* to make a change of climate and surroundings necessary. In spite of every effort much difficulty is experienced in securing incipient cases for admission to the Adirondack Cottage Sanitarium, and 70 per cent. of applicants give histories which make it evident that some of the symptoms of tuberculosis have been present for from one to three years before they were advised to apply for admission. The examiners for the Massachusetts State Hospital for the Treatment of Tuberculosis refuse about 60 per cent. of all who apply, because their disease is too far advanced. About the same proportion is refused in our examinations at Saranac Lake, and of the remaining 40 per cent. admitted not more than one-half are really incipient cases.

Recently a gentleman, a member of this Association, who for years has given his services as examiner in a large city for the Sanitarium, made to me the rather discouraging statement that not a single really incipient case of tuberculosis had ever been referred to him for examination. These facts do not look as if the profession was very generally impressed with the importance of an early recognition of the disease, or its significance in relation to treatment.

The real difficulty which often exists in making an early diagnosis, the desire of the patient to remain at home as long as possible, the apparently mild character of his indisposition, and the disinclination of the physician to alarm him, explain in a great measure the waiting policy which is so often adopted. The difficulty of making a diagnosis is not always responsible, however, for many cases show from the first symptoms which are almost unmistakable, such as hemoptysis, enlarged lymph-nodes, dry pleurisy, ischiorectal abscess, or night sweats, but are allowed to continue for months and sometimes for years without a knowledge of the true nature of their disease, or urged to adopt the necessary measures for its arrest and cure.

The increased opportunities for observation enjoyed by physicians in charge of sanatoria have already made very evident to them the significance which the early recognition of the disease bears to its successful treatment. At the Massachusetts State Hospital for the Treatment of Tuberculosis, patients are admitted from the list of those who have passed the necessary examination, not in the order in which they have applied, but according to their physical condition, the most favorable cases for treatment being taken first. Dr. Weicker, at the Berlin Congress, stated that, at his Sanatorium near Goebersdorf, of the cases which he classes as "in initial state," and which were discharged as cured in 1896-97-98, 97 per cent. were still at work on January 1, 1899, while, on the same date, of those who when they entered the Sanatorium, were classed as "advanced phthisis with destructive process," and discharged during the same years, 77 per cent. were dead.

From my own experience I foresee that although the open-air method and sanitarium régime have given renewed hope in the treatment of this fatal malady, the results obtained in the many institutions now projected or already built will be disappointing unless the all-important bearing of an early diagnosis in the successful treatment of the disease is more generally realized.

A STUDY OF SOME COMPLICATIONS AND SEQUELÆ OF TYPHOID FEVER.

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(Concluded from page 980.)

Respiratory System During Convalescence.—Abscess and gangrene of the lung are occasionally met with at this period of the disease but are extremely rare. Remlinger did not meet with either condition in the autopsy records of 315 cases. A pleurisy, typhoidal in origin, some-

times occurs to which we have already referred. Stenosis of the larynx is reported by Eshner.[84] The stenosis first manifested itself by hoarseness and the difficulty in breathing which rapidly became marked. The condition gradually subsided leaving some edema of the arytenoids. Lockard[94] reports a case of laryngeal stenosis due to abscess of the arytenoid. An extremely rare complication was seen by Dettling and Remlinger,[92] a pneumothorax following pulmonary infarcts. During the stage of convalescence the danger of tuberculosis is imminent when owing to the lowered vitality of the patient a tubercular infection may be planted upon a pneumonic patch or a latent nodule may break down. Milian[95] states that dulness, rough inspiration and râles at the right apex are not unusual in typhoid fever. This may give rise to a diagnosis or a fear of tuberculosis but he asserts that the condition always disappears. Prolonged irregularity of fever with some pulmonary signs are not infrequent, and may also give rise to a fear of tuberculosis but the fear is he thinks usually baseless.

Circulation During Convalescence.—Myocardial changes are not of unusual occurrence in typhoid fever, at least histologically, and are found in nearly all fatal cases. Guyard[90] states that the myocarditis may be benign; may be fatal in its results; or it may give rise to chronic changes after recovery from the fever. Remlinger in a study of 315 autopsy records found the cause of death to be due to degenerative changes in the heart muscle in 11 cases. Burland[96] studied the vascular system in 250 convalescent soldiers. He found in a large proportion of them that the pulse was rapid, small and compressible with signs of early cardiac dilatation. He mentions one man apparently convalescent who suddenly collapsed from acute heart failure. At autopsy the left ventricle was found to be dilated and the muscles thin and soft. Phlebitis, particularly of the femoral veins, may occur at any time, is far more frequent as the fever declines, and during the stage of convalescence than at other times. An unusual complication of the veins is reported by Munro and Workman[89] where as a result of thrombosis of the mesenteric veins gangrene of the large and small bowel, above and below the ilio-cecal valve, followed. Gangrene as a result of arteritis is not common. While it usually occurs during the active period of the disease or early during the convalescence, it may occur very late, as in a woman reported by Ansen[78] who developed gangrene on the eighty-eighth day. Arteritis may also give rise to a hemiplegia. In a case reported by Osler in *Studies No. III.*, the stroke occurred in the tenth week, and Ansen[78] reports one as late as the ninth week.

Blood During Convalescence.—Thayer[47] in an extended review of all cases of typhoid fever treated in the Johns Hopkins Hospital, 829 in number, shows that the secondary anemia which develops during the height of the disease gradually disappears after the fourth week. The fourth week marks the lowest point in the great majority of cases. In cases of short duration, however, the fall may continue during the first week of convalescence. The average loss of red cells is about 1,000,000 per c.mm. The hemoglobin is equally reduced but its return to the normal percentage occupies a longer time than the regeneration of the red cells. The colorless cells, which are usually diminished in number may, in the later stages of the disease, especially in severe forms, show an increase. Of the individual white cells the lymphocytes, both large and small, are increased during convalescence. The polymorphonuclear neutrophiles are diminished and the eosinophiles may be increased during convalescence.

Alimentary System in Convalescence.—Flexner[47] in writing of unusual forms of typhoidal infection believes that a localized cholecystitis or infection of the gall-bladder will eventually be recognized. Camac believes that infection of the gall-bladder by the bacillus typhosus occurs from the intestinal tract, and that the bacilli may lie dormant, causing no disturbance for long periods, even years. If, however, gall stones are present or there is mucous formation, a cholecystitis may develop with ulceration and perforation. Horton Smith[88] points out the analogy existing between the urinary and gall bladder. In the latter, just as in the former, typhoid bacilli may gain entrance without causing any disturbance. Smith is of the opinion that these secondary infections are brought about by the transference of the bacilli through the blood stream. That the typhoid bacillus is not the only cause of cholecystitis during typhoid fever is shown by bacteriological examination. Marsden[59] in reporting a case of cholecystitis caused by the bacillus coli communis states that this germ is not an infrequent cause of the condition. Cushing[98] has reported five cases of post-typhoidal cholecystitis in which pure cultures of the bacillus coli communis were isolated. Richardson[99] has also stated that the frequency of its presence seems to have been an important bearing in producing gall-bladder infections.

Camac has collected 115 cases from the literature. The time of the infection could not be determined in 82 of these cases but in those in which it could be definitely ascertained showed the greatest frequency between the tenth and thirtieth day. From a study of isolated cases reported from time to time it would appear that the infection is more often a complication than a sequel. Camac reports ten cases occurring as a complication and one as a sequel. Gillies[56] among 215 cases observed cholecystitis in five cases, one being of the ulcerative type the result of gall stones. Ryska reports three cases of cholecystitis in two of which there was involvement of the intrahepatic bile passages with some enlargement of the liver. One of his cases was almost chronic in type, lasting for forty days. Camac believes that relapse may be brought about

by reinfection from the gall bladder before immunity is fully established. Mantovani[100] reports a case in which there were two relapses each relapse being attended by jaundice. In one of Ryska's cases there was a relapse with a return of jaundice and evidences of another attack of cholecystitis, and in a case reported by Hamilton[81] cholecystitis followed a second relapse on the seventy-second day. J. W. Smith[88] met with a case of acute infective cholecystitis in a soldier suddenly seized with pain in the right hypochondrium and vomiting. It is possible this was a case of typhoid infection limited to the gall-bladder, although there was no bacteriological examination made. Still, in view of the fact that enormous numbers of the soldiers in South Africa were stricken with typhoid, it is strongly suggestive of a localized infection.

The symptoms of cholecystitis on which Camac lays most stress are the early appearance of pain in the region of the gall-bladder, tenderness on pressure and a tumor. Jaundice is of doubtful value in cholecystitis depending as it does on blocking of the common duct by a stone or inflammatory occlusion. He also places very little reliance on chills, sweating and temperature. Ogilvie[101] reports four cases of typhoid fever associated with jaundice. In one case the jaundice was present from the onset, in another it developed on the fourth day; both of these cases had marked tenderness over the region of the gall-bladder. The jaundice disappeared as the disease subsided. If this jaundice was the result of typhoidal cholecystitis it is certainly a very early manifestation. In another case the jaundice existed for four weeks prior to the attack of typhoid and was probably catarrhal. In a fourth case reported by Ogilvie jaundice developed during the second week. He gives no details of the case. Janeway[7] has seen no case of typhoid fever complicated by catarrhal jaundice.

Cholelithiasis is a sequel rather than a complication and may give rise to symptoms at widely varying periods from the attack of typhoid fever. Camac reports six cases occurring among the cases in the Johns Hopkins Hospital in *Studies No. III.* The earliest time following the attack of typhoid fever was three months; the latest, twenty years. The relationship between cholecystitis and cholelithiasis is an interesting one. In the first place it has been proved bacteriologically that the typhoid bacilli are in some instances undoubtedly the cause of gall-stones. Owing to their tendency towards clumping they offer a suitable nucleus about which the cholesterin crystals may form. Horton Smith[4] is of the opinion that an inflammatory condition of the gall-bladder arising after typhoid fever in which pure cultures of the typhoid bacilli are found is brought about first by the formation of gall-stones, and that the cholecystitis is secondary. Where the cholecystitis occurs as a complication the gall-bladder may become primarily inflamed without the presence of gall-stones. Cases are reported in which during an attack of typhoid fever individuals have died from ulceration or perforation of the gall bladder as the result of gall stones. In these cases it is highly probable that the gall stones were already present, and by their presence excited the typhoid bacilli to activity. Marsden's[88] case had a perforated gall-bladder in which no gall-stones could be found but usually the suppurative and ulcerative cases are associated with stones. It is quite clear that the evidence of gall-stones may be latent for prolonged periods and doubtless in a great many cases their presence is never detected. Their presence is usually discovered by the ordinary manifestations of gall stone colic except in those cases associated with cholecystitis followed by perforations which of course are more severe in character.

Involvement of the liver itself, aside from some enlargement secondary to gall-bladder infection, is rare. Remlinger noted abscess of the liver three times among the autopsy records of 315 cases. Royer[142] has reported two cases which he designates as the hepatic form of typhoid. In both cases during the second week the temperature fell to normal, there was vomiting, bilious in character, and hiccough. In this connection may be mentioned a subdiaphragmatic abscess found during convalescence from typhoid fever. R. Caton[143] and W. T. Thomas, who report the case, are unable to account for the origin of the abscess. The pus contained typhoid bacilli.

Genito-Urinary System During Convalescence.—While numerous reports have of late appeared with accounts of pyuria or an acute cystitis due to typhoid infection there have been very few in which the condition has become chronic. Young[47] in an extensive report of a case of chronic cystitis following typhoid states that he has been able to find but two recorded cases in the literature. In the acute cystitis of typhoid the urine is acid and irritation symptoms are unusual, the patient in the chronic cases being unable to say when the trouble began. Curschmann[102] reports these cases coming on during defervescence and convalescence and lasting from six weeks to four months. Two cases of hemorrhagic cystitis are reported by Vincent[144]. Both occurred during the third week and showed large numbers of typhoid bacilli. Horton Smith[4] in the Goulstonian Lectures for 1900 states that bacilluria exists in about one out of every four cases of typhoid and that cases so affected are as a rule rather more severe. While it may occur at any time during the course of the disease it rarely occurs before the third week and is even more often delayed until convalescence. He believes that the condition is brought about by bacilli excreted by the kidney from the blood and multiplication in the bladder. The urine under these circumstances is acid, turbid in appearance with a shimmer when shaken, and contains ranging amounts of albumin. Pyuria may be associated with this condition. Garnier and Lardennois[146] report a case of pyonephrosis, the pus

showing the typhoid bacilli. Nephrectomy was first done, and later the kidney was removed, death occurring shortly afterward.

Secondary infection of the testicle and epididymis occurs in the great majority of cases in convalescence. Do[108] reports 39 cases with the following observations: Suppuration occurred in one-fifth of the cases; the testes and epididymis are oftenest involved together, occasionally the epididymis alone; bacteriological examination showed all of the simple cases and most of the suppurative cases to be due to the typhoid bacilli. The onset may be manifested by sudden pain and fever, or may develop insiduously. In the simple cases atrophy may take place while total destruction of the testicle in the suppurative cases is not unusual. Kinnicutt[146] from a report of two cases and a study of the literature finds that while orchitis and epididymitis most often occur as sequelæ some 16 cases are reported as arising during the course of typhoid fever. While sometimes secondary they are usually typhoidal in origin. The lesion, is as a rule, unilateral and involves either the testicle or the epididymis or both and not infrequently the cord. Suppuration occurs in 25 per cent. of all cases but destruction of the entire testicle or atropy are of infrequent occurrence. Constitutional disturbance is very slight. J. W. Smith[88] observed orchitis as a complication in a few instances, but in none of them did suppuration occur. Trasburger[104] mentions a case in which multiple abscesses appeared during convalescence with location of one of them in the right epididymis.

Nervous System During Convalescence.—By far the commonest manifestation of nervous disorder during the stage of convalescence is neuritis, either multiple or localized. The neuritis manifests itself by pain, loss of power and muscular atrophy, the condition being amenable to treatment and usually ending in recovery. Among the convalescing soldiers in South Africa a very common complication was what was termed "tender toes." J. W. Smith[88] states that these cases are characterized by exquisite tenderness of the pads and balls of the sole of the foot unassociated with redness or swelling. Gillies[98] also noted this condition in a number of cases reported by him. J. W. Springthorne[105] who has also seen service in South Africa, reports an officer who during convalescence had numbness of his feet, inability to raise the toes, inability to evert the feet, dragging of the toes and atrophy of the leg muscles. Other cases also occurred, according to this officer, who attributed the trouble to the use of the "puttes" which were tightly strapped about the legs. In this way it is probable the peroneal nerve became pinched near the upper end of the fibula.

Hysteria occasionally develops during the convalescent stage, and in ten cases reported by Osler[47] it occurred in each instance in a male. In a case reported by Jacquet and Lacarre[100] the hysteria was associated with hemihyperesthesia, vesical paresis and polyuria.

Meningitis, the result of infection of the meninges by the typhoid bacillus, is reported by A. Hoffman[107] and a second instance by Laignel-Lavastine.[147] In discussing meningitis, the result of typhoidal infection Hoffman believes that where there is no evidence of the presence of a purulent exudate the condition is caused by the presence of toxins in the meninges. Paralysis of the acute ascending variety (Landry) has been observed in five cases by Ganiez[100]. He also reports five cases, one his own, in which symptoms of both a spinal and peripheral lesion existed. This last type was characterized by an acute ascending paralysis, with partial recovery, followed by hyperesthesia and atrophy of the muscles (does not mention whether this case occurred in convalescence). According to Joseph Baylock[109], psychic disturbances occurring during convalescence are always of a graver import than those arising during the height of the disease. The disease often leaves a greater or less intellectual enfeeblement, sometimes a slight disturbance of intelligence with partial or total loss of memory. There may be an ambitious delirium, actual mental aberration and various forms of chronic insanity. Mania is by far the most frequent manifestation and is usually of short duration. In an epidemic of typhoid among the insane George Boody[41] states that complete recovery from insanity occurred in ten cases while a temporary improvement took place in a few others.

Hubbel[17] states that complications involving the eye seldom develop during the height of the disease and that this is especially true of oculomotor palsies and optic nerve atrophy.

Typhoid Spine. (Spondylitis typhosa).—Mention of this condition was made in the previous essay. The condition was originally described by Gibney who believed it to be due to a perispondylitis. Osler[110] reported three cases and as the result of an analysis of the symptoms believes it is a form of neurosis, in some cases at least, on the ground that prolonged periostitis without suppuration is unlikely. Instances have since been reported by Quincke[111], Könitzer[112] Schaptz, Lovett and Withington[80]. The symptoms may be delayed for some weeks after apparent recovery from the disease. The first manifestation is severe pain in the lumbar region of the spinal column, a rise in temperature and intense pain on movement of the trunk or pressure over the spinous processes. More or less pronounced paresis of the lower limbs follows, with, in some instances, shooting pains. The patellar reflexes are ultimately lost and there may be incontinence of urine and feces. In the case reported by Lovett and Withington the reflexes were exaggerated and ankle clonus was present. This case would also indicate that there may be organic changes, as was asserted by Gibney, for, there was distinct swelling over two of the lumbar vertebræ. In distinction from Pott's disease, with which spondylitis may be confused, suddenness of onset taken in conjuction with a recent attack of typhoid fever is important.

Unusual Complications.—Addison's disease first appearing during the fifth week of typhoid fever, is reported by H. W. Evans[114]. The patient was a girl aged seventeen who was seized with vomiting attacks and tachycardia during the fifth week. A week or ten days later pigmentation of the skin appeared above the pubes, extending to the nipples and axillæ. Cardiac asthenia and emaciation steadily progressed and in two months from the onset of the symptoms the patient died.

Exophthalmic goiter in a male appearing during convalescence is reported by Benoit[115]. During the first week of convalescence tachycardia set in, followed in about two weeks by tremor of the hands. Still later exophthalmos and enlargement of the thyroid gland were noted. The symptoms were invariable and at times the patient became very emotional. It should be stated that his grandmother and an aunt had goiter.

Suppuration of the thyroid gland was observed by Schudmak and Vlachos[116]. At the onset of the attack of typhoid fever slight enlargement of the thyroid gland was noted. A month from the onset the gland became enlarged, tender, and the skin over it reddened. Examination of the blood showed a progressive leucocytosis. Incision of the gland revealed pus from which the typhoid bacilli were grown in pure culture. They formed the conclusion from experiments that the typhoid bacillus is capable of producing pus, except the most virulent which act too rapidly, and that the leucopenia of typhoid fever does not depend on the virulence of the germs but on their localization in the chief sites of leucocytic formation. A second instance of suppuration of the thyroid gland is reported by R. J. Godlee.[148]

Wind swallowing is reported by Reuter-Sonderburg[117]. A woman during the third week was seized with sharp pains radiating from lower end of sternum, dyspnea and great distention of stomach. She went into collapse and unconsciousness. On passing a stomach tube an odorless gas escaped but no dilatation of stomach was present. This procedure had to be repeated at intervals to avoid collapse. Distention was attributed to the swallowing of air owing to presence of mucus in mouth.

Relation of Epilepsy to Typhoid Fever.—L. P. Clark[118] examined several hundred epileptics for the purpose of finding what influence typhoid fever had in the etiology of epilepsy. He takes a view opposite to that held by Dide as in only one instance was he able to find that the attack of typhoid fever had any bearing on the epilepsy. Gillies[58] observed typhoid fever twice in epileptics. In one case the number and severity of the fits increased as the fever subsided; in the other no fits were observed while the case was in the hospital.

Relapse and Recrudescence.—A relapse may be of two kinds, first, that which occurs after a definite period of apyrexia, and, second, as "intercurrent relapse," so called because reinfection occurs when the temperature has nearly reached normal only to rise again. The former is by far the most common form. The frequency of relapse varies largely with different authorities. Osler in *Studies No. III.*, found 10 per cent. among 829 cases, while Blackader among 100 children, noted it in fifteen instances. While a recrudescence is usually attributed to some indiscretion in diet, or to excitement or to the so-called "bed fever," cases are occasionally seen in which it is difficult to distinguish between recrudescence and a true relapse. Osler[47] in his recent report cites a case illustrating this difficulty. One relapse is the rule but cases not infrequently are seen in which two or more are noted. Atkinson[119] reports a man who following a period of pyrexia on the fifth day had a relapse lasting twenty days; this was followed by another period of apyrexia when on the eighty-seventh day he had a second attack lasting for thirteen days. Thus the entire attack extended over a period of one hundred days. J. W. Smith[58] found disturbances of temperature as convalescence was coming on, or had been established, extremely common in the military hospitals of South Africa.

Second Attack of Typhoid.—Reinfection with typhoid fever a considerable period after complete recovery is established is extremely uncommon, but Nest[120] investigated 118 cases with reference to recurrence and found 10, giving a percentage of 8.5 per cent. This, however, seems somewhat too high and would probably be greatly reduced were larger numbers of cases investigated. Among his ten cases, the recurrence occurred at periods varying from 45 years to 7 months. Curiously enough, of the two cases which died, the greatest time had elapsed since the first attack, namely, 45 and 25 years. One case which had an attack after an interval of 24 years recovered. Etienne[29] reports a remarkable case in which three attacks occurred in a woman. The first in her 27th year; the second in her 44th year, and the third in her 57th year, the patient surviving. He also gives details of 35 cases of double attacks. Larquier,[68] writing of typhoid fever among the insane, reports ten cases of recurrence.

BIBLIOGRAPHY.

[94] N. Y. Med. Journ., June 30, 1900.
[95] La Presse Médicale, Oct. 17, 1900.
[96] Lancet, July 28, 1900.
[97] Medical Chronicle, Feb., 1901.
[98] Johns Hopkins Hosp. Bull., May, 1898.
[99] Am. Journ. Med. Sc., 1898.
[100] Pammatone, 1899-1900, Vol. 3, p. 146.
[101] Brit. Med. Journ., Jan. 12, 1901.
[102] Münch. med. Woch., 1900.
[103] Thèse, Lyon, 1900.
[104] Münch. med. Woch., 1899.
[105] Internat. Med. Journ., Australasia, Sept. 20, 1900.
[106] Bull. et mem. de la Soc. Med. des Hop., May 10, 1900.
[107] Deutsch med. Woch., July 12, 1900.
[108] Thèse, Paris, 1899.
[109] L'Echo méd., Feb. 17, 1900.
[110] Johns Hopkins Hosp. Rep., Vols. IV., V.
[111] Mitth. a. d. Grenzgeb. d. Med. u. Chir., 1898, p. 585.
[112] Münch. med. Woch., Aug. 29, 1899.
[113] MEDICAL NEWS, June 16, 1900, p. 939.
[114] Lancet, June 9, 1900.
[115] Arch. de Neurologie, Oct., 1900.
[116] Wien. klin. Woch., July, 1900.
[117] Mitth. f. d. Verein Schleswig-Holstein-Aerzte, April, 1900.
[118] N. Y. Med. Jour., May 6, 1899.
[119] Lancet, Sept. 8, 1900.
[120] Settimana Med., Nov., 1899.

[142] La Presse Médicale, 1900, No. 17.
[143] Liverpool Medico-Chirurgical Journal, March, 1901.
[144] Jour. des Practiciens, April 13, 1901.
[145] Medical Record, May 25, 1901.
[146] La Presse Médicale, April 13, 1901.
[147] La Semaine Médicale, 1901, No. 2.
[148] Lancet, June 1, 1901.

TREATMENT OF DIABETES MELLITUS.[1]

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MUCH has been written on the causation of diabetes mellitus and more on the treatment of this disease, but until we have found the exact etiological factor or factors in its production our treatment must be influenced by the symptoms of individual cases.

Of course, when syphilis and functional nervous disorders produce a glycosuria the treatment is simple enough; such cases form rather a small percentage of those who suffer from this malady. By far the larger number are those in which no cause is known. Each case must, therefore, be specially considered and the treatment instituted according to whether it be a mild or a severe type of the disease.

The treatment accordingly should be directed toward (1) eliminating the amount of sugar in the urine and blood, (2) maintaining the nutritive equilibrium of the patient or even increasing it, (3) maintaining or increasing the function for assimilating carbohydrates, and (4) the prevention of complications. To accomplish these several objects the treatment resolves itself into dietetic, hygienic and medicinal. Naturally much depends upon the type of the disease, and the class of patients we have to treat. It has been my custom in treating this affection to divide my cases into the mild and severe forms, whether the origin be pancreatic, neurogenic, gouty, or bacterial. How do we differentiate these types?

By the mild form is understood those cases of glycosuria in which by the removal of carbohydrate food the urine loses its glucose entirely, or it is reduced to an infinitesimal amount, without much influence on the weight of the patient. These cases are generally seen in persons past middle life, although sometimes in youth also.

In the severe type the sugar does not disappear from the urine, notwithstanding the entire withdrawal of carbohydrates. There is great wasting; acetone, diacetic acid, even B-oxylbutyric acid are frequently present, generally with an increase of urea, ammonia, etc., in the urine. Such cases are not infrequently seen in young individuals and among the poor and laboring classes.

There is some tolerance for carbohydrates in all forms of the disease, more, of course, in the mild than in the severe type. As it has been repeatedly proven that in a mixed diet (proteids, fats, plus carbohydrates) the carbohydrates not only produce by their oxidation animal heat and energy, but also prevent destructive disintegration of animal tissue, it is a great error to exclude carbohydrates entirely from the food of diabetes, except for the purpose of diagnosis or in the beginning of dietetic treatment.

Voit has shown, and it has been repeatedly verified, that in order to maintain nutritive equilibrium an average adult requires at least 2,500 kilo-calories of food daily (carbohydrates, proteids and fats.) A kilo-calory is the amount of heat required to raise one kilogram of water one degree Centigrade. In speaking of calories in this paper, I refer always to the large or kilo-calory. It is known that 1 gram of carbohydrates represents 4.1 calories, gross; 1 gram of proteids represents 4.1 calories, gross; 1 gram of fats represents 9.3 calories, gross.

A diminution in the amount of any one of these foods must be replaced by a corresponding amount of calories of either of the other two foods.

As the prime object in the treatment of a mild case is to diminish the hyperglycemia and glycosuria, we must begin by excluding carbohydrates from their food, replacing them by other forms. It is best to do this gradually taking at least three or four days to come to the point of total exclusion, and keeping this up for three or four weeks until the urine becomes free from sugar. In this way not infrequently the tolerance for carbohydrates becomes re-established and maintained, and the function for assimilating them increased, so that after several weeks or months of treatment these patients receive quite a liberal quantity of carbohydrates in their food, amounting to as much as 80 to 100 grams daily, which may be cautiously increased.

This method of dieting in the mild cases may be sufficient to keep the urine constantly free from sugar, the patient maintaining his nutritive equilibrium and nitrogenous balance; he may even increase in weight. It stands to reason that such patients must be kept under observation and, of course, the same method of dietetic regime repeated in case of the reappearance of sugar in the urine.

In those cases in which a small quantity of sugar still persists with this method of dieting, and where the nitrogenous elements in the urine are increased, it will be necessary to greatly reduce the proteids with the carbohydrates, substituting for them their caloric value in fats. Frequently the carbohydrates and proteids may be advantageously replaced by milk. Many diabetics, both in the mild and severe type, will assimulate a large quantity of lactose without showing much if any increase of sugar. In fact, milk forms an important factor in the diet in the majority of my cases. Should this method of treatment, together with judicious medicinal treatment, fail, the case is undoubtedly a progressive one and must be classed in the category of the severe form.

[1] Read before the Section on Medicine of the New York Academy of Medicine.

In the severe type I am extremely cautious about the dietetic treatment, and, when the urine reacts to Gerhardt's test, a strict rigid diet is to my mind a grave error and very injurious. But when Gerhardt's test is negative, when the quantity of urea is normal or not much increased, and when the patient is still in the prime of life, a strict, rigid diet should be enforced in the beginning, providing the loss of weight is not too great and nitrogenous elements, such as albumens, etc., are absent in the urine. In many of these cases there is an increased nitrogenous metabolism and here the aim should be not so much to diminish the sugar excretion as the nitrogenous waste and the production of diaceturia. This may be accomplished by the administration of carbohydrates and fats and diminution of the proteids. While such cases are under diet it is important that the sugar excretion should be estimated daily, and the general condition of the patient, his weight, the urea and if possible the ammonia excretion must be carefully watched. Any decrease in weight and presence of diacetic acid in the urine would be an indication to increase both carbohydrates and nitrogenous foods at once. Briefly stated, in diabetes of very severe type fats may be allowed *ad libitum*, proteids, and carbohydrates, in the shape of starches and bread, in moderate quantities.

The question of food, its quantity and kind, is a troublesome subject for the physician; for, while it may be a comparatively easy matter in hospitals and private clinics to measure out and weigh the exact quantity of food diabetics must receive and be guided in this by the excretions measured and analyzed daily, in private practice this is almost impossible. For this reason it is well to formulate briefly the caloric values of the most important foods so that a diet table may be quickly drawn up, taking into consideration of course the caloric value lost by the excreted sugar.

Referring to the tables of Rubner, it is seen that individuals of different weight and occupations require a different quantity of calories per kilogram as follows:

TABLE I.

Daily Allowance for Individuals With Easy Occupation or Doing Moderate Work.

Weight	Calories
80 kilograms	2,864 or 35.8 calories to 1 kilogram of weight
70 "	2,631 " 37.6 " " " "
60 "	2,368 " 39.5 " " " "
50 "	2,102 " 42.0 " " " "
40 "	1,810 " 45.2 " " " "

TABLE II.

Daily Allowance for Individuals Doing Laborious Work.

Weight	Calories
80 kilograms	3,372 or 42.2 calories to 1 kilogram of weight
70 "	3,094 " 44.2 " " " "
60 "	2,792 " 46.5 " " " "
50 "	2,472 " 49.4 " " " "
40 "	2,129 " 53.2 " " " "

Bearing these in mind it is quite easy to remember that one egg represents about 80 calories; lean beef or fish, as many calories as its weight in grams; very fat beef or mutton, three times as many calories as its weight in grams; butter, eight calories per gram; wheat bread, two and a half times as many calories as its weight in grams, 50 per cent. of its weight being carbohydrates; good gluten bread two or three times as many calories as its weight in grams, 30 per cent. of its weight being carbohydrates; alcohol, about 7 calories per gram.

The caloric value of few other articles may be referred to in any of the recent works on this subject. Thus the whole diet question can be systematized easily. I refer to the following two tables giving briefly the diet and the bill of fare for a day of two diabetic patients of different type and weight.

Example of a Rigid Diet for a Day for an Individual Weighing 60 Kilograms and Requiring 2,368 Calories.

250 grams of white fish		à 3 calories per gram		=750 calories	
100 "	boiled mutton	à 3	" "	=300	"
100 "	lean ham	à 4	" "	=400	"
50 "	cheese	à 4	" "	=200	"
5 eggs, each		80	" "	=400	"
				2,050 calories	
Add for oil on salad, asparagus, cucumbers, spinach, or cauliflower				300	"
Total				2,350 calories	

A bill of fare from the above example might be made up as follows:

8 A. M. One cup of tea with saccharine; 3 eggs and 50 grams of ham for dish of ham and eggs.

10 A. M. One cup of bouillon with 1 egg.

1 P. M. One cup of clam broth; 250 grams fried white fish; dish of asparagus or spinach with French dressing; 100 grams roast lamb with mint sauce; salad with oil and vinegar; 25 grams of cheese; demi-tasse of black coffee.

7 P. M. Three scrambled eggs; 50 grams of broiled ham; salad; 25 garms of cheese; one cup of tea with saccharine.

10 P. M. One dozen small clams or oysters on shell.

Example of a Mixed Diet for a Day of an Individual Weighing 7 Kilograms and Requiring 2,630 Calories.

30 grams of cheese		à 4 calories per gram		=120 calories	
100 "	smoked tongue	à 4	" "	=400	"
100 "	veal	à 1½	" "	=150	"
50 "	ham	à 4	" "	=200	"
200 "	pompano	à 2	" "	=400	"
2 eggs, each 80 calories				=160	"
				1,430 calories	
Add for butter and oil on salad				350	"
" " 1 pint milk				350	"
" " vegetables and bread				500	"
Total				2,630 calories	

The bill of fare from the above example might be divided as follows:

8 A. M. One cup of coffee and milk with saccharine; 25 grams of wheat bread and butter; 50 grams of ham.

10 A. M. One cup of bouillon.

1 P. M. Six oysters or clams on shell; dish of soup with asparagus tips; 200 grams baked pompano with lettuce; 100 grams roast veal; dish of spinach; 20 grams of cheese; 25 grams of gluten bread; 1 baked apple.

4 P. M. One cup of coffee and milk with saccharine; two raw or soft boiled eggs.

7 P. M. One cup of hot milk; 100 grams of smoked tongue; 100 grams of cauliflower with butter sauce; lettuce; 10 grams of cheese; 20 grams of gluten bread and butter.

The amount of carbohydrates in the portions of bouillon, oysters, clams, asparagus, spinach and cauliflower in the rigid diet list is so small that it need not enter into the calculations of diet, which ought to be changed daily. A glass of Rhine or Moselle wine may advantageously be taken with dinner and supper, the caloric value of which will also help to compensate for that lost by the excreted sugar. Patients undergoing a rigid diet suffer most from the exclusion of bread. This article cannot be replaced by any other article of food although I have found that a few walnuts may serve here. They are very palatable with steaks or chops. Good gluten bread contains at least 30 per cent. of carbohydrates, while almond and aleuronal breads are not palatable unless they contain a large percentage of wheaten flour.

Medicinal Treatment.—There is no subject in the vast domain of medical literature which shows such discrepancies as to the value of drugs as those which have been used in the treatment of diabetes. Where a dietetic treatment removes the hyperglycemia and glycosuria medicinal treatment is not indicated except to correct a faulty stomach or sluggish bowels. Depending on the type and apparent origin of the disease there are some drugs which have a beneficial effect on the excretion of sugar. Among such I will mention opium, arsenic, and the bichloride of mercury.

I use opium for its beneficial effects on thirst and for its general effect on the patient's physical and mental condition. It frequently improves the assimilation of food and allays nervous irritability and often the annoying pruritis. It diminishes the quantity of urine and hence the frequent micturition. It has a decided effect on bolemia for it is often observed that many diabetics consume enormous quantities of food. I have frequently found almost a specific effect from the use of this drug in diabetes associated with neurasthenia, in individuals deeply engrossed in business with its attendant worries. The dose should be small in the beginning, not more than half a grain three times a day, given about an hour or an hour and a half after meals. To get its full effect it may have to be increased to three times this amount. It is a well-known fact that the tolerance for opium and its alkaloids in diabetes is very great. Nevertheless, it must be used cautiously and its constipating effects overcome by cascara or other laxatives.

In severe cases which show Gerhardt's reaction it should never be used on account of the danger of impending coma; nor must it be continued for any length of time in any case.

In the severe type of the disease I have found but little effect from arsenic. In the mild cases it frequently increases the limit of assimiliation for carbohydrates, diminishes the glycosuria and acts as an excellent tonic, especially in those patients who are very anemic and who have had the disease for a long time. In conjunction with diet, or even after a diet and opium treatment, it has given me gratifying results. I employ but two preparations, Fowler's solution and the bromide salt. The latter given in doses of $^1/_{30}$ grain to $^1/_{10}$ grain three times a day in much water after meals.

There are a certain class of diabetics in whom the disease begins about middle life or before. Individuals with an excess of adipose tissue, good livers, who consume great quantities of wines, etc. They exercise but little and hence rapidly take on flesh. The disease commences not unlike an acute infection. Shortly before the outbreak of glycosuria they suffer from malaise, lassitude, cephalalgia and constipation, all symptoms akin to those due to bacterial invasion or ptomain poisoning. When the disease manifests itself the percentage of glucose is found to be very high, and patients rapidly show the effects of a toxic disease. In such cases I feel justified in claiming for the bichloride of mercury a certain, perhaps a specific action in the reduction of sugar and amelioration of symptoms. This fact I pointed out several years ago. The mercury should be given on and off for a period of ten days every month, commencing with $^1/_{12}$ of a grain three times a day and rapidly increasing the dose to $^1/_6$ of a grain three times a day after meals. Usually the teeth and gums of these patients are well preserved and mercury has no effect on them. I have never seen any symptoms of mercurial poisoning when the bichloride is given in the way indicated. Even if the sugar is not entirely eliminated from the urine the patient is restored to a better state of health with entire abeyance of toxic symptoms.

Hygienic Treatment.—The relief of mental anxieties and worries is a *sine qua non* in the hygienic treatment, for it is well known that emotions or nervous shocks aggravate the symptoms decidedly. The patient's surroundings must be made as cheerful as possible and everything done to lighten professional, business and family cares. It is well for the practitioner to dissuade the patient's mind from the gravity of his disease. To him a glycosuria is not so significant a term as diabetes mellitus. The patient must be warmly clad, both in winter and summer, and must keep his skin moist and active by warm baths. Cold plunges and sea-baths ought not to be taken; carbonic-acid baths are very invigorating.

While muscular exercise undoubtedly diminishes the excretion of sugar in nearly all cases, fatigue must be avoided. When conditions are such that exercise cannot be indulged in, massage is indicated; it improves assimilation and promotes a healthy metabolism.

I do not believe in a specific virtue of the

waters of any of the spas, but they certainly do correct many a faulty stomach and sluggish bowels, two factors of prime importance in this disease. At the spas the congenial surroundings, the regular mode of life, the absence of care, etc., all tend to improve the physical and mental state of the patient.

Complications.—Of the numerous complications of diabetes I will briefly mention diarrhea, tendency to suppuration, phthisis, gangrêne and coma. As diarrhea frequently follows a constipation, the latter condition must be avoided. Persistent diarrhea often of tuberculous origin must be treated by a mixed diet, opium, iron and washing out of the intestines. The tendency to suppuration shown by cellulitis and furunculosis is met by diminution of the hyperglycemia and glycosuria and antiseptic local medication.

Phthisis, a very common complication, is the cause of death in about 25 per cent. of the cases. It is, therefore, very important that a diabetic patient should carefully avoid all risk of tuberculous infection. If phthisis should arise a sojourn to a milder climate is advisable, and large quantities of fatty foods with some alcohol must be given.

In gangrene the dietetic treatment must be enforced and the gangrenous parts treated with dry dressings and according to modern surgical principles.

In severe cases of diabetes, which show a marked reaction with Gerhardt's test and evidence of B-oxybutyric acid, the danger of coma is imminent. Such patients must be treated by the allowance of a liberal amount of carbohydrates, especially levulose, vegetables and bread. They should drink a great quantity of water, especially the alkaline waters; acids are to be avoided. In these cases milk should be the article of diet. Medicinally patients ought to have enormous quantities of carbonate of soda, 100 to 150 grams daily, and must be kept quiet and avoid all excitement, exertion and exposure.

When coma has set in, blood depletion followed by intravenous injection of 1 per cent. sodium bicarbonate in a normal salt solution should be used. From one to two liters of this solution may be injected in a short time as practised by Lepine. It is always safer to anticipate this complication than to treat it when it arises.

40 East 60th Street.

CUTANEOUS MANIFESTATIONS IN DIABETES.

BY S. SHERWELL, M.D.,

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To enumerate all the cutaneous manifestations in the glycosuric or diabetic patient, considered either as coincidental or etiological, would, as I believe, make it necessary to give nearly a full list of the primary and to some extent of the secondary lesions of skin affections. I must naturally confine myself to those occurring most frequently and to those that are in my opinion not only of the greatest frequency, but of importance also. I will endeavor at least to do so in the order of their relative grave significance.

First of all, then, I would name the generalized xeroderma prevailing in the large majority of cases, in which this glycosuric condition or diabetic disease exists. It is a xeroderma of the functional variety, that coming on relatively suddenly in adults or others, and not one congenital, as in the organic form of this affection, in which cases there is ordinarily great diminution, or almost total absence of the glandular elements of the skin. This dry condition of the skin causes great discomfort, and is ordinarily, though not invariably, attended with distinct generalized pruritus—usually the mucous membranes, oral, buccal, lips, etc., have the same symptoms, at any rate, the first, that of dryness, as can be readily seen, and as readily understood, the skin and mucous membranes being so directly analogous in tissue and to a certain extent in function. So marked is this in some cases that the faucial conditions have not unfrequently led me to the first suspicion of diabetes, the patient being examined for existing or supposed catarrhal conditions. The mucous secretion in those cases of the upper air-passages and mouth has a peculiar and characteristic look difficult to describe; it is gummy, and lies in distinct ridges, resembling nothing so much as the "ribbed sea sand" of the poets, or a beach at low water-mark, with the spume of the sea, thrown up into ridges, here and there. This is purely mechanical, of course, and occurs as a result of the adhesive character of mucus.

I have mentioned pruritus as an accompanying symptom in the condition above; sometimes it seems an entity, or disease of itself, as other clearly-marked and objective symptoms are not present, and at first glance there would seem to be no causative pathological or organic disturbance. This condition of pruritus is most aggravating and distressing. It is often, in my opinion, taken for a neurosis of the skin. This symptom alone being present in an individual, without apparent cause, should excite suspicion and should compel a careful examination of the urine, even when from the general florid health diabetes has not even been suspected.

Probably the next in order of frequency would be the eczematous dermatitic manifestations, occurring in any region of the skin, but most prone to attack flexor surfaces, and more especially the genital, anal, and inguinal regions. These eczemas are usually attended with the fiercest itching and should instantly, and always excite suspicion and lead to careful and frequent examination of the urinary secretion; for often the urine will be found glycosuric at one time of the day, and yet the reaction be absent, or almost totally so, at another hour of the twenty-four, so that the examination of the morning water, the so-called *urina sanguinis*, is not sufficient.

In my experience, I think the symptoms produced by an eczema of this nature, in and around

the genital regions, while not so grave a symptom in significance probably as many others, are more distressing to the patient than any other, and as a rule are those most complained of by him or her. The increased frequency of urination in these cases, the almost inevitable consequent hurry from the frequency with which the act is done, and consequent slight dribbling of urine, over, and about the parts; the drying, and subsequent decomposition of this saccharine urine, will explain this condition in diabetes. Very often the *saccharomyces* and other mycotic parasitic organisms can be found in microscopic examination in full bloom in these situations; and the lesion will furnish a typical picture of the eczema marginatum.

Naturally I have no time or permission to go into therapy in general in these remarks, but would simply state as a matter of experience that cleanliness and antiparasitic lotions of a mild type, frequently employed, are cleaner and much better in the treatment of these conditions than the unguents so often prescribed for their relief. A valuable lotion in my hands has been one of bichloride of mercury, about 1-1000, in a dilute emulsion of bitter almonds, which may also contain a moderate amount of salicylic acid, and resorcin.

Furuncular and carbuncular manifestations are often concurrent as is well known, and are clearly caused by the diabetic state. These lesions and conditions are quite often discretely regional in character. In my experience, the nuchal and gluteal regions show the greatest predisposition. In any patient (certainly any elderly or obese patient, though not confined to them it may be remarked) in whom this condition is manifest or recurrent, the urine should be examined without delay with the same care and frequency as before emphasized. It is astonishing how quickly sometimes this phlegmonous tendency can be controlled, or aborted, on the cause being ascertained and appropriate hygiene, diet, and treatment being instituted. Both in these cases and the eczemas before mentioned, it is something more than carelessness, and approaching criminality, to neglect to try to find out what can ordinarily be so readily discovered by testing the renal excretion.

Erythematous lesions, some evanescent, others of the graver kinds, as erysipelas, are sufficiently common as a result of this glycosuric state, and also gangrene, either relatively superficial or, as after an erysipelas, in the form of gangrene of the extremities, notably the lower.

These are such well-recognized general surgical conditions that they need only to be mentioned as among the lesions produced. I would like to remark, however, that the only times that I have seen erysipeloid manifestations on the fauces and upper air-passages have been in diabetic individuals—at least I could not otherwise class the peculiar inflammatory condition. That condition in those individuals subsided as did other manifestations, under the classical treatment.

A form of vesicular and bullar skin disease, the so-called dermatitis herpetiformis or Duhring's disease has often for one of its etiological factors the diabetic state, although there may, and must be, others that produce this skin affection. I have often found sugar in the urine in cases of this kind, so that I cannot look upon it as a mere coincidence.[1]

As to tumor formations, I do not think one would expect to find cutaneous neoplasms, originated by the diabetic diathesis or state, as ordinarily the conditions prevailing are those of waste, not increase of tissue growth; but there is certainly one, if not two, diseases of the skin of this nature that may be mentioned. They are now quite well recognized. I refer to xanthoma diabeticorum and in my opinion possibly also to blastomycetic dermatitis.

Speaking of the first, the yellow new growth, not so very unfrequently found about the eyelids, and having, as oculists and almost all practitioners know, for its seat of preference and first election, the inner canthus of the upper lid, xanthoma planum, is simulated by growths frequently found in other parts and not unfrequently all over the body in enormous number and quantity in diabetic patients. This peculiar affection, identical in histological character and appearance with ordinary xanthelasma, was first recognized by Mr. Malcolm Morris of London about twelve years ago. Since then perhaps fifty cases have been recorded. I myself have recorded two, the last in the *Journal of Cutaneous and Genito-Urinary Diseases,* September, 1900, for a fuller description of which I refer those interested. The patient had an enormous number of these tumors distributed all over the body and limbs, so that even decubitus in any position was painful, and could not long be maintained, no ulceration occurred. On examining the urine of this patient it was found loaded with sugar, as is usual in those cases. On her being confined to antidiabetic diet almost without other treatment, she was entirely relieved of this affection in a few weeks. On cessation of this diet the eruption reappeared in some degree, again as quickly disappearing under the same régime, this happening again and again and being absolutely commensurate with the degree of obedience of the patient, and thus I think proving in the most distinct manner the etiological connection. The urine tests were effected by the diet in precisely similar ratio. These cases are being now reported with greater frequency, and the same history, or nearly so, applies to almost all.

Of the other neoplasm, blastomycetic dermatitis, I have little personal knowledge, either never having had a case, or else not having recognized it, or else having mistaken it for a verrucose

[1] Of interest in this connection I may mention a case of this kind occurring in a boy, eight years of age, who was under my care last March. I examined his urine carefully, as is my habit in excessively chronic cases of skin disease, and was surprised at the instantaneous, classical, and abundant sugar reaction. Under mild mercurial treatment, alterative and disinfectant doses (as I regard them) of hydrarg. c. creta and a decided antidiabetic diet, he became much better, and on examining his urine I now find a comparatively feeble reaction to the test. Is this diabetic or glycosuric state a cause or a consequence? This is the question, and I think a mixed one, for I believe that effect and cause sometimes are difficult to differentiate.

tuberculosis of the skin, which it much resembles. Some of the earliest and best investigations of this peculiar form of skin disease have been made in this country by Gilchrist, Hyde,[1] Montgomery, and others. They find a yeast fungus very plentiful in the tumor and fungations thereof. Curiously enough the urine does not seem to have been examined much, as far as I have discovered in literature. One reason, possibly, why the presence of glycosuria is so relatively infrequently found in the urine of infants and young children may be because of the comparative infrequency of the examination of same. I do not think such examination is often made in the routine practice of the average physician, except during the progress and treatment of the exanthemata, for instance, so few of the degenerative kidney troubles being incident to youth. Therefore transient states of this complication may be often overlooked. As to my own experience I have several times found glysosuric urine in infants (usually those of well-to-do parents), who, from the liberal character of their meals, the abundance, and good serving of same, have been literally stuffed and gorged with the carbohydrates, on the principle that the more they eat, the bigger they will grow. In these cases diminution of the diet, with attention to other conditions, has greatly simplified the treatment and advanced the cure of eczematous and other diseases, and at the same time caused total disappearance of the glycosuric character of the urine.

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DIABETES IN SURGERY.[2]

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DIABETES mellitus presents many points of deep interest to the surgeon. Not many years ago patients suffering from diabetes were practically ruled out from the field of surgery, excepting in cases of great necessity. To-day, with our fuller knowledge on the subject, we operate upon diabetics almost as freely as upon normal individuals.

There seem to be three chief reasons why diabetes interferes with a surgeon's work: First, the sugar circulating in the blood is hygroscopic and it draws water from all the tissues of the body until the tissues are actually too dry. This must interfere with the normal process of repair, and it probably does so in several different ways. It may limit the capacity of the leucocytes for furnishing alexins to meet the toxins, and it may interfere with the proper development of new repair cells. It is not improbable that the gangrene following operations in diabetics is due to a blocking of the small lymph-channels with leucocytes, which are unable to travel freely in surroundings devoid of a normal proportion of moisture. I have been watching for an opportunity to make sections in a case of this sort for microscopic study for three or four years, but none of the diabetics upon whom I have operated during this time have suffered from this complication of gangrene, because of the rigid asepsis employed in these cases. Lymph-channels are more likely to become blocked in the course of sepsis. These are the only cases in which I use rubber gloves in operating. If the wound can be kept perfectly aseptic, so that an extensive local hyperleucocytosis necessary for the purpose of meeting bacteria is avoided, then repair goes on quite smoothly.

I have in the hospital at present an old woman with intracapsular fracture of the neck of the femur. She had about eight grains of sugar to the ounce of urine at the time of the operation four weeks ago. The operation consisted in making a large anterior flap of tissues, exposing the neck of the femur and then spiking fragments with a spike driven through the trochanter and the head of the femur. She was put upon dietetic régime for diabetics and the amount of sugar in the urine diminished to about two and a half grains to the ounce, but the patient was not very controllable and complained so much about the diet that we put her back on mixed diet in two or three days and allowed the sugar to return to the proportion of about six grains to the ounce. The large wound healed by primary union and the patient will be ready to leave the hospital in about a week.

A second reason why diabetics require special attention on the part of the surgeon is because the fluids of a wound loaded with sugar are, in all probability excellent culture media and particularly susceptible to the attacks of bacteria. Rigid asepsis is therefore demanded.

A third reason why diabetics interest surgeons is because the anesthetic may precipitate an impending nephritis in kidneys that have become irritable because of the unusual labor involved in excreting sugar. In these cases I use the nitrous oxide and oxygen anesthesia whenever practicable, and in any event avoid the use of ether. Surgeons see a fairly large number of cases of transitory diabetes following injuries of various kinds, and so many of these occur after injuries which would disturb the semilunar ganglia particularly that I was about to propose a very pretty little theory to the effect that diabetes represented a functional neurosis dependent upon a disturbance of large sympathetic ganglia. Dr. Bailey has undermined this theory by showing that in some cases of experimental diabetes in animals the glycosuria continues after excision of the semilunar ganglia. In this connection I would call attention to the fact that Dr. Opie of Baltimore has supplemented the work of Vonuering and Minkowski on pancreatic diabetes by determining that it is only in cases in which the islands of Langerhans undergo hyaline degeneration that we have diabetes associated with pancreatitis.

I had a patient at the Post-Graduate Hospital

[1] Journal Cut. and Genito-Urinary Dis., Jan., 1901.
[2] Read before the Medical Section of the New York Academy of Medicine.

some years ago in whom gall-stones had perforated the common bile-duct and had escaped beneath the peritoneum. An extensive hemorrhage followed beneath the peritoneum, large quantities of bile escaped through the rupture. An enormous abscess followed, so that the peritoneum was apparently dissected away from the pancreas which sloughed. I evacuated the large collection of fluid, removed the gall-stones and the neucrotic pancreas, repaired the bile-duct, and the patient made a good recovery. She afterward came into the office saying that she had diabetes, and I referred her to the medical clinic. We could not find her in time to get notes for this discussion, and to learn of the later history of the case.

About half of the cases of diabetes mellitus that occur as a result of traumatism follow injuries of the head, and almost all of the others seem to follow injuries of the liver, kidney, pancreas, stomach or spleen. Cases of traumatic diabetes are apt to be associated with traumatic neuroses of various kinds, and the glycosuria, while transitory in a great many of the cases, may become permanent. In some cases polyuria exists after sugar has disappeared from the urine, and this seemed to support the theory that the liver and kidney were suffering from a functional neurosis emanating from a common sympathetic center and that disturbance of the kidney lasted longer than the disturbance of the liver; but Dr. Bailey has apparently shown that we cannot look to the semilunar ganglia as a center for the reflex disturbance. The surgeon is sometimes called upon to testify that diabetes has followed a trauma, and it has been discovered on several occasions that the patient was suffering from glycosuria previous to the time of his injury; consequently we have to be on our guard in accident insurance cases, and it is not safe to testify to the character of a so-called traumatic diabetes unless we know the history of the patient in the matter of glycosuria previous to the time of his injury.

MEDICAL PROGRESS.

Basal Fractures.—E. QUÉNU and R. TESSON, in discussing the symptomatology of antero-posterior paramedian basal fractures of the cranium, bring out the following points. Usually there is deep coma from the onset of the symptoms and often hemorrhage, commonly nasal or buccal, infrequently aural. Such are the only two frank symptoms elicited, because the coma is often a contra-indication to rigid examinations and an internal hemorrhage may be prolonged by it. Pharyngeal ecchymosis has been very rarely reported in literature, either because it was entirely absent or because it was not looked for by the attending physician. Ordinarily fractures of the floor of the cranium must show themselves by indirect symptoms, *e. g.*, hemorrhage, ecchymosis and paralysis, except in those involving the petrous portion of the temporal bone when often the clinical picture is so exact as to permit a diagnosis of different varieties. In certain cases, probably the majority, the splenoidal sinus is opened, whence proceeds the bleeding. Occasionally the foramen lacerum posterius will be invaded and any of the three nerves in it directly or indirectly involved. The other large sinuses of the skull may also be wounded and give rise to fatal intracranial hemorrhage. With an essentially bad prognosis, the diagnosis rests upon uncertain data and often the postmortem examination will reveal the true state of affairs and show the futility of any intervention.

Spread of Yellow Fever.—Previous to the discovery of the fact that the mosquito is the means of conveying the virus of yellow fever, H. R. CARTER (*Med. Rec.*, June 15, 1901) collected considerable valuable evidence to show that several days must elapse after a house has been infected before another person will be able to contract the disease. In a number of instances it was distinctly proven that at least ten days must pass after a case of yellow fever has entered a house before the virus will become sufficiently developed to infect a second person, and a subsequent period of from three to six days will elapse before symptoms of the disease are manifested. The first period he calls "extrinsic incubation" and in the light of recent discoveries becomes easily explainable, for it is the time which must elapse from the infection of the mosquito by biting a yellow-fever patient to the time the mosquito becomes capable of communicating the disease to man. From this it follows that when a case of yellow fever develops in a clean house the inmates of this house who leave within a few days may be permitted to go without quarantine detention, for they will not develop yellow fever.

Cause of Cancer.—Since Gaylord published his interesting work in reference to the cause of cancer, much skepticism has been shown in regard to the conclusions which he has drawn. A pure culture of the germ was probably not used in any instance and no attempt was made to recover the organism from the cancer which was produced. S. W. BANDLER (*Med. Rec.*, June 15, 1901) points out the evidence which is still lacking to furnish conclusive proof of the germ theory. Blastomycetæ have been found in various chronic affections and their presence in a carcinomatous growth cannot be considered necessarily causal. Although, undoubtedly, the growths which Gaylord produced in other animals were carcinomatous, he used peritoneal fluid and not pure cultures of the organism. He cannot exclude, therefore, the possibility that cancer cells were transmitted. Leopold has shown that from a fresh carcinoma of an ovary a pure culture of blastomycetæ may be obtained which, when injected into a rat, produces a large number of peritoneal nodules (not carcinomatous), but causes death and from these nodules a pure culture of blastomycetæ may be obtained. The

causal relation of blastomycetæ to the growths produced in animals is proven, but the decision concerning the character of the neoplasms and their relation to carcinoma and sarcoma is to be the controversial point.

Evidences of Intellectuality in Brain Morphology.—Comparative anatomy has been frequently made use of in determining the location of various brain centers, and pathological human brains often assist the neurologist in mapping out the cortical areas, but there is still much doubt as to the exact location of many of the sensory and motor centers. E. A. SPITZKA (*Med. Rec.*, June 15, 1901) has made a comparative study of the brains of several distinguished persons, among them Dr. Eduard Seguin and his son, Dr. Edward C. Seguin, paying especial attention to the size and development of the island of Reil. He believes that in the anterior part of this area is located the speech center rather than in the operculum, as has been held by some. Furthermore, by comparing the human brain with that of the porpoise, in which animal the sense of hearing is probably more acute than in any other, he believes that the posterior part of the insula shares in its development that of the auditory sense center. The anterior portions of the insulæ in the two brains mentioned above were very noticeably developed and convoluted, so much so that they were protruding more than in ordinary human brains. On the other, a lack of development in the opercula might lead to the same degree of prominence of the insula and thus result from an exactly opposite cause.

Cause of Mental Deficiency.—After investigating 10,000 children, F. A. MACNICHOLL (*Phil. Med. Jour.*, June 8, 1901) is thoroughly impressed with the belief that heredity plays an extremely important part in determining the mental capacity of our school childen. Of this number 885 showed more or less mental deficiency; 471 were born of drinking parents; 221 were classed as due to heredity and 153 could give no satisfactory information. He was able to trace the family histories of 463 children through three generations and of these 313 had drinking fathers and 51 drinking mothers. Of these children 76 per cent. suffered from some neurosis or organic disease. In 51 families having 231 children with total-abstinence antecedents only 3 per cent. of children were dull and only 18 per cent. suffered from neuroses.

Knee-Jerks in Chorea.—Gordon has called attention to a peculiar knee-jerk which is frequently present in cases of chorea, and A. A. ESHNER (*Phil. Med. Jour.*, June 8, 1901) alludes to it as a distinguishing point between this disease and spasmodic tic and athetoid movements. It is not always constant, but when present is probably distinctive. With the patient recumbent and the knee raised, while the heel rests upon the couch and the muscles are relaxed, if the patellar tendon be struck the foot rises, but instead of falling back immediately it remains suspended for a variable time, and then sinks back slowly to its original position. Sometimes only a sluggish descent follows the rise. At other times, as the foot begins to descend, it is caught in mid-air and held for a time or even raised again to a higher level than at first.

Spontaneous Cure of Hydatid Cysts.—W. M. STEVENS (*British Med. Jour.*, May 11, 1901), thinks that there are many possible causes for this result. Thus, it may be due to natural death of the parasite—the entrance of bile into the cyst, having a toxic effect upon the parasite; the absorption of the hydatid fluid; inordinate multiplications of the internal brood and lastly, changes in the ectocyst. The length of the natural life of the organism is not known, for active parasites have been found after forty years. Bile does not necessarily cause the death, as the majority of cysts contain no bile. The most widely accepted theory is the absorption of the fluid, but this does not hold good, as many cysts are found to be tense and contain dead parasites. Hydatids of the lung containing daughter cysts are rare, which would prove that the theory of inordinate growth of the internal brood is a wrong explanation of the death of the parasite. The author thinks that the best explanation of the spontaneous cure is found in changes in the ectocyst. The changes are increase of its fibrous tissue or condensation, causing the vessels to become occluded. Dead hydatids are found where the blood-supply is poorest. In many cases there is no puckering or contraction. In hydatids of the lung where the ectocyst is tough, the cyst is small and partly calcareous. Graham also finds in these cases that the tissue about the ectocysts is indurated.

Relationship of Vaccinia to the Inoculated Form of Smallpox in Man.—The transmission smallpox in man to bovines has never given successful results. S. MONCKTON COPEMAN (*Brit. Med. Jour.*, May 11, 1901), agrees with Jenner that it is probable that cowpox may have originally sprung from smallpox in man. He says that it is not improbable that the cracked udders of the cow may have been infected by the hands of persons milking the cows, while they still had upon their arms the vesicles of the old form of inoculation smallpox. He found that if he inoculated monkeys with smallpox in a series, he could then produce with virus taken from them, a true vesicle upon the epidermis of calves. Virus taken in turn from the calf's vesicle would produce a true vesicle upon the arms of children, and that there was no "generalization" of the eruption in any of the cases.

Mild Type of Smallpox.—The Dominion of Canada, says F. MONTIZAMBERT (*Brit. Med. Jour.*, May 11, 1901), is being invaded in some places by smallpox from the United States. So mild is it that in many instances it has been diagnosed as chicken-pox and German measles. The Public Health reports published in Washington show that between December 28, 1900,

and March 29, 1901, there were 11,964 cases reported. Of these, but 157 died. This gives a mortality of 1.31 per cent. It is suggested that the mildness of the type is due to some meteorological condition. There is, as a rule, little, if any, initial fever, a very sparse discrete eruption and no secondary fever. The patient is not usually confined to bed or even to the house and often does not seek medical aid. In many of the lumber camps it is called the "cedar itch." In the States bordering on Canada there have been 4,433 reported cases. That it is smallpox is shown by the fact that it attacks those who have not been vaccinated and those who have not been for some time. Those recently vaccinated are immune.

Mental Fatigue in School-Children.—Through media of dictation, memory arithmetic and combinations JOSEPH BELLEI (*Lancet*, May 11, 1901) studied the effects of the educational system in vogue in Italy as to the amount of fatigue produced in children. The conclusions he arrived at are interesting. (1) No single subject produced any special fatigue. (2) The first hour of lessons is a useful mental exercise, because the children are able during that time to overcome the state of inattention in which they were at the time of coming to school. (3) The morning lessons do not produce great mental fatigue. (4) The midday rest is of great use to the children, because it does not destroy the good effects of the morning's mental exercise. (5) Although the condition of the mind after the midday rest is at its best, after an hour's work the mental fatigue is so great that the worst work of the day is then done. Therefore if the morning's work does not fatigue, it consumes the mental energy of the children in such a manner that they cannot undertake light work in the afternoon without falling into great mental fatigue.

Etiology of Convergent Squint.—The one essential cause of squint is a defective development of the fusion faculty. This is frequently associated with other developmental defects, namely, hypermetropia and congenital amblyopia. Where the fusion faculty is alone defective, or congenitally absent, there is usually an alternating squint with perfect vision in in each eye, says C. WORTH (*Lancet*, May 11, 1901). The treatment of squint should be to prevent the loss of central fixation in the deviating eye; to prevent deterioration of vision in the deviating eye; to train the fusion faculty at the earliest age; and to restore the visual axes to their normal relative directions. Congenital amblyopia and anisometropia predispose to squint by lessening the value of binocular vision. Heredity is a predisposing factor in squint. Of 1,278 cases studied there was a family history in 1,028.

Diagnosis of Functional Disturbance of Kidney.—Functional renal disorders are far more common than anatomical lesions of the kidney. The two best methods for the determination of the former are (1) the ascertainment of the molecular concentration of the urine and (2) the study of the elimination of methylene blue by the kidney after the subcutaneous injection of 0.05 gram. In a healthy individual, according to the observation of ACHARD (*Prager med. Woch.*, May 9, 1901), the drug will appear in the urine in from fifteen to thirty minutes. There may be a delay of several hours under pathological conditions. The total elimination normally is completed in from thirty-five to sixty hours. In desquamative nephritis this period is shortened, while its prolongation to three or four days indicates renal insufficiency.

Local Anesthesia for Abdominal Section.—Little or no shock follows in certain cases where local anesthesia is employed for abdominal sections, says T. H. MORSE (*Lancet*, May 11, 1901). The causes of shock are the anesthetic and the amount of injury produced upon the nerve structure during the operation. There are some patients who are in such a low state of vitality that general anesthesia is impossible and in these local anesthesia is to be advised. No shock followed in five cases of local anesthesia produced by ethyl chloride. Dr. Morse thinks that the pain is less felt when the patient's condition is very grave.

Diminished Subclavicular Expansion in Infantile Pneumonia.—WEILL (*La Semaine Méd.*, May 29, 1901) calls attention to an important early sign in infantile pneumonia, in which condition tubular breathing and râles are so often lacking in the early stages. No matter whether the base or apex be affected, lack of expansion is noticed in the subclavicular region when the child is lying supine. While in pleurisy with effusion deficient expansion may also exist, it is here proportionate to the exudate, and is found either at the base alone or affecting the entire half of the thorax.

THERAPEUTIC HINTS.

Dilatation in Valvular Heart Disease.—From a study of the pathology of residual dilatation of the heart, there are three main indications: To reduce the resistance to systole within the cardiac chambers; to restore or increase the cardiac force; and to remove the accumulation behind the lesion. The first requires rest in bed, or, if this is impossible, in an armchair with the feet down. The second requires careful selection of diet and cardiac and cardiovascular stimulants. The swiftest of these are ether, ammonia, alcohol, and hypodermics of strychnine. Slower, but more lasting, are digitalis and its allies— strophanthus, squill, senega, caffeine, lily of the valley, etc. These drugs increase the force of the systole, lengthen the diastole so giving rest to the ventricle and time for the veins to empty, contract the peripheral vessels, and presently relax those of the kidneys

with free diuresis. But, while waiting two or three days for the diuresis of digitalis, purgation, paracentesis, bleeding or potassium iodide may be advisable. The removal of residual accumulations, dropsy and mechanical congestion, with relief of the alimentary, nutritive and eliminative functions, is greatly favored by purgation. A sharp purge is compound jalap powder, calomel, or calocynth. The catharsis may be attended by much temporary depression, but it is followed by relief of dyspnea and cardiac distress. Rapidly developed anasarca of the limbs may be relieved by acupuncture, but the drainage should not be unduly prolonged. The most urgent cases demand venesection with removal of 300 to 900 c.c. (30 oz.) of blood, but, where there is objection to this, wet-cupping or a dozen leeches over the sternum may suffice. With improvement in the condition, these measures are gradually relaxed, and tonics introduced.—J. MITCHELL BRUCE in *Treatment in Practical Medicine.*

Scarlet Fever.—In mild cases, the treatment consists of rest in bed, liquid diet, plenty of water to allay thirst and promote elimination of the poison, and a mild cathartic such as calomel. The free use of milk, buttermilk, water and mineral waters lessens the danger of post-scarlatinal nephritis. For a mild diuretic, potassium acetate answers well and may be aided by the citrate or bicarbonate of potash or sweet spirit of nitre. The nose and throat should be cleaned by spray or syringe with a mild antiseptic, such as hydrogen peroxide. A gargle may lessen the danger of ear complications, and in addition the sore throat is improved by a teaspoonful every three hours of the following:

℞ Tinct. ferri chlorid.....gm. 8.0 (ʒij)
Glycerin. } aa.....30.0 (ʒj)
Syr. Simplicis }
Aquæ, q.s. ad.....90.0 (ʒiij)

The temperature may be controlled by lukewarm or cold sponging, or, if the patient is nervous and restless, by acetanilid, phenacetin, or sodium salicylate. A weak heart may require strychnine, digitalis or alcohol. If the kidneys become involved, give warm baths, saline cathartics, milk diet and water with liquor potass. citrat. Keep up counterirritation over kidneys with poultices and mustard, and promote diaphoresis by hot pack or vapor bath. Convulsions may be controlled by morphine, atrophine, chloral hydrate, potassium bromide or chloroform. Urgent symptoms may demand hot mustard baths, with cold affusions or ice to the head, or even venesection. Morphine is the best remedy to control the pain of scarlatinal rheumatism, but sodium salicylate should be given, and the joint wrapped in a glycerin ointment.—F. D. MILLARD in *Pediatrics*, May 15, 1901.

Meigs' Food.—Soak Russian gelatin or isinglass, gm. 1.3 (gr. xx), in cold water, 240 c.c. (ʒviij, for a few minutes, then boil till the gelatin is dissolved (about fifteen minutes). Add a small teaspoonful of arrowroot first made into a paste with water, then add milk and sugar as follows, and allow to boil for a few minutes. For the youngest children mix two parts of this with one of milk and add two tablespoonfuls of cream and gm. 26.0 (ʒviss) of milk-sugar. For older children from one-half to two-thirds should be milk, to the 50 per cent. mixture, one and one-half tablespoonfuls of cream and gm. 22.0 of sugar being added, and to the two-thirds mixture one tablespoonful of cream and about gm. 16.0 (ʒiv) of sugar of milk. For a child inclined to diarrhea substitute barley or wheat for the arrowroot, and for costive children use oatmeal. Another food useful for indigestion, cholera infantum, diarrhea or dysentery, Meigs made by mixing equal parts of arrowroot-water, lime-water, cream and milk, dose c.c. 60 (ʒij) every two hours. Between the feedings give plenty of cool water with or without brandy, c.c. 4.0 in c.c. 240 (ʒi in ʒviij). After one or two days increase dose to c.c. 90.0 (ʒiij), and gradually diminish the proportion of cream and lime-water till the infant's normal food is reestablished.

Neurasthenia.—Severe cases occurring in women, whether complicated with hysteria or not, are most successfully treated by a strict application of the rest cure. The patient must consent to be the subject of a despotic rule, and peculiar natural qualifications on the part of physician and nurse are essential to the efficient and not disagreeable maintenance of the necessary obedience and cooperation of the patient. Absolute rest in bed, milk diet for a few days, then forced feeding, massage and aloes when needed, constitute the treatment. When somewhat better, an outdoor life without fatigue should be encouraged, with regular graduated exercise and a generous diet. Men seldom submit to the rest cure, but will take up wheeling, golf, rough camping, etc. These occupations should be kept up for a long time.—SANGER BROWN in *Medicine*, June, 1901.

Pneumonia.—When cyanosis appears, nitroglycerin, by its vasodilator action, may intensify the capillary paresis, and, though often valuable, may at times be well replaced by diffusible stimulants such as one c.c. (♏xv) each of aromatic spirit of ammonia, compound spirit of ether, compound spirit of lavender and tincture of valerian. If used at all, nitroglycerin requires to be given two or three times an hour. Champagne and dry wines are good in small, frequent dosage. Digitalis and other heart stimulants may be given, but strychnine in full hypodermic doses and the valerianate of caffeine, gm. 0.06 (gr. j), every two hours or oftener, are better remedies. To promote the elimination of toxins administer by rectum and subcutaneously a physiological salt solution, sometimes preceding this by the extraction of 500 c.c. (℥j) of blood from the vein. Finally, the inhalation of oxygen is to be recommended.—R. H. BABCOCK in *Medicine*, June, 1901.

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A WEEKLY JOURNAL

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No. 111 FIFTH AVENUE, NEW YORK.

Subscription Price, including postage in U. S. and Canada

PER ANNUM IN ADVANCE	$4.00
SINGLE COPIES	.10
WITH THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES, PER ANNUM	7.50

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LEA BROTHERS & CO.,
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AND Nos. 706, 708, & 710 SANSOM ST., PHILADELPHIA.

SATURDAY, JUNE 29, 1901.

OUR ANNUAL TETANUS EPIDEMIC.

THE time for our yearly visitation of tetanus is at hand. Last year there were not nearly so many cases of the disease as the year before, but still some thirty fatalities were reported in the neighborhood of New York. During the ten days immediately preceding and following July 4th last year there were reported to the Coroner of Cook County, Illinois, which includes Chicago, twenty-nine deaths from tetanus. In the same period of the preceding year only seventeen deaths from the disease were reported. It seems, then, that variations in the mortality of the disease are not due to lessened virulence or better precautions, since practically the same sanitary conditions obtain in New York and Chicago, but probably to local meteorological conditions which encourage or inhibit the growth of the bacillus of tetanus.

It has been claimed that long-continued damp weather especially fosters luxuriant growth of this microbe. Dry, hot weather preceding the Fourth of July means the free play of sunlight on streets and thereby the better disinfection of street dirt, for sunlight is the great natural germicide. Our recent damp and late season, with its noteworthy absence of sunlight, may reasonably be expected to portend a larger mortality than usual from tetanus. It is useless to hope for a limitation of the present insensate celebration of the "Glorious Fourth," on the day itself and for a week beforehand, by fireworks and explosives. The toy pistol and the blank cartridge will continue to have their victims and the physician's only hope lies in his effort to avoid as far as possible the enclosure of the tetanus bacillus in the wounds thus inflicted and the use of prophylaxis against its effects if it should find a lodgment in the tissues.

Dr. Gideon Wells (MEDICAL NEWS, June 1, 1901) emphasized the conclusion that the source of the tetanus bacillus in wounds caused by blank cartridge and fireworks is not something specific to these articles, but is the street dirt that finds entrance into the tissues through the abraded skin. We pointed out editorially last year that the immediate occasion for the growth of the tetanus bacillus in such wounds is the fact that the tissues are seared by the explosive that causes the wound. Beneath the seared surface, walled off from the oxygen of the air, the tetanus bacillus which is absolutely anaerobic in character finds a suitable nidus for luxuriant growth. This fact gives the first indication for the treatment of such wounds. They should be laid thoroughly open. If suppuration occurs, absolutely free drainage should be ensured, for pyogenic bacteria may by their consumption of oxygen in the superficial parts of a wound easily provide extremely favorable conditions for the growth of anaerobic bacteria in the deeper parts.

It must be remembered that the first symptoms of tetanus, as usually described—the slight rigor of the muscles of the jaw, the stiffness of the neck and the tendency to slight muscular spasm—are not signs of beginning tetanus, but warnings of impending death from the disease. The tetanus toxin has already reached its favorite location, the great nerve centers. One of the most serious disappointments of serumtherapy was the failure of the much-vaunted tetanic antitoxin to accomplish in human beings what it had effected in animals. The tetanus toxin becomes firmly lodged in the nerve-cells and cannot be neutralized. Even the proposed method of injecting the tetanus antitoxin beneath the dura, to place it more directly in contact with the nerve-cells, has not met with the measure of success it promised.

The tetanus antitoxin is perfectly capable,

however, of neutralizing the tetanus toxin if it can be brought in contact with it before the toxin becomes fixed in the nerve-cells. To assure this, however, the remedy must be given before any symptom of tetanus shows itself. Whenever, especially in summer, deep or lacerated or seared wounds have had the opportunity of becoming freely contaminated by street dirt, especially by horse droppings, for this material seems to be the principal habitat of the tetanus bacillus, the medical attendant should not hesitate to use antitetanic serum in prophylactic doses. No possible harm can accrue. Tetanus antitoxin has been used in thousands of cases all over the world without a single untoward result or even any unpleasant sequel. On the other hand, the general use of antitetanic serum in the manner suggested would save many young lives that are hopelessly lost if the symptoms of acute tetanus are allowed to develop. In a number of cases undoubtedly the serum would be administered unnecessarily, but the diminished mortality would more than compensate for the exercise of such extra precaution.

"THE OLD MAN OF THE SEA."

IN dealing with a problem so stupendous in scope and so hopelessly complicated in its practical application as the tuberculosis question, every advance necessarily broadens the outlook and each new position captured opens up fresh possibilities of attack. The infectious nature of the disease has been recognized for centuries, so that even the older anatomists, like Valsalva and Morgagni, feared to dissect the bodies of consumptives. But it was not until bacteriology had furnished the already existing empirical conclusions with a logical starting-point that efficient sanitary regulations could be made and legal restrictions of sources of peril to the community became feasible. Now that the dangers of close proximity to those diseased in this way are generally recognized and a knowledge of the "infernal machine" represented by each clot of sputum has permeated even to the lower classes, the attention of investigators is being diverted to other elements of the problem. It is not intended to depreciate the importance of what has already been gained or to permit any laxity in the application of all possible precautions, but it is apparent that in some directions, at least, the limit has been or will soon be reached and that, even by the most Draconic legislation, it will never be possible to wholly extinguish this ever-smoldering fire.

The connection between heredity and the phthisical habitus has always been too evident to admit of very serious opposition, but now that researches in other provinces have increased our store of premises it seems but a step to enquire whether, in addition to the now almost universally accepted predisposition, the possibility of an immunity acquired through ancestors may not also be inferred. The notable decrease in virulence in what are, perhaps, next to tuberculosis, mankind's most dreaded scourges, syphilis and smallpox, can hardly be more than partially due to external causes, and the theory of a widespread partial immunization gains color when we consider the frightful ravages produced by these diseases when introduced into virgin soil, such, for example, as has been afforded by the Pacific Islanders. The racial insusceptibility of the negro to yellow fever and the immunity to malaria gradually acquired by whites living in tropical countries are cases in point and if increased power of resistance to such acute diseases is to be borne on through the generations, why not also to a chronic infection like tuberculosis? This is the stand taken by Reibmayr (*Münch. med. Wochenschr.*, Mar. 26, 1901) who believes that the present tendency is too much to place a blind reliance on the hope of enclosing the individual in an artificial prophylactic armor which shall enable him to evade chances of infection, an extravagantly Utopian ideal, instead of fostering the resources of the organism itself and by individual and familiar hygiene promoting and preserving whatever of natural or hereditary immunity we may possess.

Dr. Trudeau's article appearing in this issue is an eloquent appeal for the recognition of another doctrine which has long been preached from Saranac Lake, but is still, judging by the experience of those interested in sanatoria, but little heeded by the general practitioner. Pulmonary tuberculosis, taken in the proper stage and intelligently treated, is a curable disease, and this stage is one that every practising physician can and should school himself to recognize. But once the corner has been turned and the disease from being incipient has become actual, the prognosis is among the darkest in medicine. The gravity of the outlook increases in geometrical progression with the length of time that the enemy has been allowed to operate unmolested. The question is one calling for the rarest good

judgment on the part of the medical attendant, especially, as is often the case, when he is unable to obtain special counsel. Admitting that the diagnosis is frequently among the most difficult, the conscientious man will give his patient the benefit of the doubt, and at once put him in a position to shake off the disease while there is yet time and before this relentless "Old Man of the Sea" has fatally gripped the breast of his victim.

TRAPS AND PITFALLS IN THE PRACTICE OF MEDICINE.

THE practice of medicine has the tendency to bring out whatever is best in a man. Let his natural bent be scientific, literary, humanitarian, philosophic or business-like, he will find an expression for his tastes in his daily work, and his methods will inevitably be stamped by his predominating characteristics. His road to success, however, is beset by dangers that bear no relation to his skill or conscientiousness. They are not the traps of quackery, but the unseen pitfalls into which the most earnest and competent may unwarily slip in their professional zeal.

For instance, the man who neglects to secure his financial position by careful investments, insurance, and prompt collection of his bills, may arrive at the age when he ought to cease active practice, and yet be obliged to continue to make his daily living. Too often keen, able practitioners develop into querulous, jealous, disappointed old men, because they are obliged to compete with the younger men when they ought to have retired with honors.

The neglect of business methods is one of the commonest pitfalls of medical men. An easy-going doctor will let a patient run up a bill for a year or two until it assumes formidable proportions; and the patient, fearing to be asked for it, will call in another man, and intimate to friends who inquire why the change was made that the doctor was in some way at fault.

The honest physician is constantly losing cases that would be of pecuniary benefit, because he refuses to perform some questionable or unnecessary operation, and when another less scrupulous, man consents to do the work, the honest man is made to bear the slur of implied carelessness or lack of skill to hide the real reason why he is no longer that person's physician. It often happens that when a doctor plainly tells the patient that there is nothing the matter with him, or advises treatment that means self-discipline or active exercise, the hypochondriac or lazy invalid will summon a less disinterested man, and cast inuendoes at the former doctor's professional ability.

The possibility of illness and death from infection and the possibility of social ostracism due to deliberate blackmailing or medical scandal are pitfalls that are too well known to need more than a caution by way of comment.

Dr. J. Dundas Grant in delivering his presidential address before the Hunterian Society of London ("Traps and Pitfalls in Special and General Practice") related a number of interesting personal anecdotes of the narrow escapes he had had from falling into some traps, and the experience he had gained by stumbling into others. He thinks that the errors which result from neglect of physical signs are perhaps greater than those that result from defective investigation of symptoms, but the old family doctor, clinging to symptomatology, and the hospital graduate, keen on physical signs, are equally liable to fall into traps by neglecting to combine these methods of diagnosis. But Dr. Grant warns the younger men that it requires as much sympathetic tact as technical skill to carry out a thorough physical examination, as patients are apt to resent what they call being "pulled about." He cites the case where as a young man he was warned that a certain elderly gentleman did not like to have his heart examined, but feeling that the case demanded an examination, he used his stethoscope and was promptly dismissed.

Those who have made the mistakes that Dr. Grant frankly acknowledges, such as diagnosing lumbago instead of aneurism of the abdominal aorta, catarrh of the uterus, instead of suppuration of the Fallopian tubes, hemorrhoids instead of epithelioma of the rectum, and dyspepsia instead of carcinoma of the stomach, will be interested in his description of the pitfalls he learned to avoid through the instructive lessons of physicians whom he called in as consultants.

But on attaining the rank of consultant himself Dr. Grant remarks that he was much struck with the ease with which he seemed to arrive at the diagnosis of the obscure cases to which his friends called him, as contrasted with the difficulties he had had in analyzing his own cases. The conclusion is evident, he remarks, that a man called in consultation in a particular case, seeing it for the first time when its features are well developed, is in a much more favorable position

for diagnosing it than he who has watched its gradual development from the outset, and there is need for the charitable and honorable consideration on the part of the consultant toward the practitioner placed at such a comparative disadvantage. The reverse position, however, may call for charity on the part of the family doctor, who calls a consultant for a single examination of a case when it is too obscure to allow of absolute diagnosis. A few hours or days later the symptoms may have developed so that he reads their meaning plainly, and if he is narrow-minded may utter an unfair opinion of his colleague's judgment.

The traps into which the surgeon may fall, for lack of medical knowledge and those that beset the physician who knows but little of surgery, may be best avoided by taking advantage of the special knowledge of one's fellow practitioners. While the family doctor should emulate the exactness of the consultant, the latter should try at the same time to look at the case from the point of view of the general practitioner; for the traps into which both general and special practitioners are likely to fall are many, the former for want of special knowledge, and the latter for want of general regard to medical considerations.

ECHOES AND NEWS.

NEW YORK.

Medical Society of the State of New York.—Dr. Henry L. Elsner, President of the Medical Society of the State of New York, announces the appointment of his Business Committee for the ensuing year, consisting of Dr. Nathan Jacobson, Chairman, 430 S. Salina Street, Syracuse, Dr. George Ryerson Fowler, Brooklyn, and Dr. William C. Krauss, Buffalo. All letters and inquiries pertaining to papers and scientific communications for the semi-annual meeting to be held in New York City, October 15th and 16th, 1901, and the annual meeting to be held in Albany, January, 1902, should be addressed to the Chairman.

Examinations for State Hospital Service.—At a meeting of the State Civil Service Commission held November 9, 1900, it was decided to accept in lieu of the examination heretofore required by the Commission for the position of physician, first and second grades, (including the position of medical interne in the State hospitals) the examinations for license to practise medicine in this State conducted under the authority of the University of the State of New York, and to enter accepted applicants for such positions upon the eligible list in accordance with the ratings obtained by them in the examination for license to practise. In accordance with this action, an eligible list will be made up after the examination for license to be held in June, 1901, containing the names of persons whose applications have been accepted prior to July 1st. The positions are open to men and women. The salary in most cases is $600 and maintenance. Persons desiring to obtain a place upon the eligible list must file applications on the forms provided by the Commission. Such forms will be furnished on application to Chief Examiner, State Civil Service Commission, Albany, N. Y.

New Sanitary Superintendent for Richmond.—Dr. Theodore C. Walser, one of the oldest physicians on Staten Island, has been appointed sanitary superintendent for the Borough of Richmond. The office was made vacant by the recent death of Dr. John L. Feeney.

Health Official Indicted.—Dr. Obed L. Lusk, Deputy Sanitary Superintendent of the Health Department in the Borough of Queens, was indicted by the Queens County Grand Jury last week on a charge of neglect of duty. The indictment is based on the death of John Charlton of hemorrhagic smallpox at Woodside on May 4th. Charlton's body was left in his apartments, which were in a thickly populated tenement house, for fifty-two hours after his death. Charlton was ill for several days and his case was reported to the health authorities, but he was not removed and died while his wife and children stood around his bed, hungry and ill.

Navy Repulses Health Board.—A sharp conflict took place recently between the officials of the Navy Yard and the health authorities of Brooklyn as to the jurisdiction of the latter over patients suffering with infectious disease upon Federal property. The controversy arose over a case of smallpox which was being cared for by the Navy.

Grip Among Horses.—Although there may be some difference of opinion expressed by veterinary surgeons as to the extent of the peculiar epidemic which prevails among the horses of New York, nearly all are agreed that it is serious and likely to become more so within the next few days. The number of afflicted animals has been placed from 15,000 to 40,000. The disease is evidently of bacterial nature and contagious.

Pure Milk in New York.—The Milk Commission of the Medical Society of the County of New York has just made a public statement of its work and incorporating advice as how to secure pure milk. The formation of the Commission was the outcome of a symposium on milk held over a year ago in which many eminent authorities took part. So much interest was aroused that the Society determined to form a commission that should study the best methods of improving the milk supply of New York. In pursuance of this plan, the commis-

sion held a conference with the milk dealers, invitations having been extended to all the principal dealers in Manhattan and the Bronx. The friendly co-operation of the best dealers was thus earnestly sought, as it was recognized that the subject was beset with difficulties that must be solved, if at all, by the increased attention and labor of those actually concerned in the production and handling of milk as a business. The milk that is daily delivered in New York comes from five States, including thirty-four counties, and comprises more than 1,250,000 quarts. The Milk Commission decided to form a bacterial standard for the purity of the milk submitted to it, as a step in advance for the milkmen. This has been done in several cases with private companies through the country, and it was decided to extend its benefits to any dealer desiring such oversight. The Board of Health looks after chemical composition, and has lately required that milk be not too largely contaminated with bacteria. A circular was drawn up for distribution among milkmen containing the best methods to be employed in producing and handling milk, especially when it has to be transported for a long distance. The rapid deterioration of milk can be much hindered by early preventing its contamination by bacteria present in the dirt of stables, barnyards, upon the cow, and the persons of the men milking and handling the milk. The commission has determined upon a standard of clean milk, and will certify the milk of any dealer coming up to such standard. The work of several competent bacteriologists who have labored for the commission during the past six months, not only examining many specimens of milk, but visiting and carefully inspecting the dairy farms that produce the milk, has shown that milk up to its advanced standard can be sold in this city by observing three precautions: (1) Strict cleanliness, which includes the barns, yards, cows, milkers, and all utensils. Bacteria which get into milk by means of dirt are thus largely excluded. (2) Rapid and sufficient cooling of the milk. The few bacteria that do get in are thus prevented from growing. (3) Thorough icing around the milk until it reaches the consumer. The production of toxins from the growth of bacteria is thus retarded. The milk that reaches the required standard will be certified, as shown by a label. These labels have not yet been given out, as it has seemed best to wait a short interval to see if the standard can be maintained. A dealer may thus have this extra milk for sale, and should get an extra price above his average for it, as his farmer naturally requires more for its production.

Smallpox in New York.—There is so much smallpox in Yonkers that the City Hospital, which is situated several miles from the heart of the city in the woods, is filled to overflowing, and tents which were furnished by the local militia company are being used for the accommodation of patients. Cases of smallpox have also been reported in the Elmira Reformatory, and at the Goshen jail.

PHILADELPHIA.

Typhoid Fever Diminishing.—Health reports for the past week show improved conditions in West Philadelphia so far as typhoid fever is concerned. Investigation of the sewers has been stopped, because of lack of funds. The total number of cases for the city was 61 as compared to 94 the previous week.

State Appropriations for Hospitals.—Much dissatisfaction prevails as a result of Legislative action regarding hospital appropriations. Some of the items have not come under final action, but as matters stand at present the Hospital of the University of Pennsylvania receives no appropriation. Jefferson asked for $300,000 to aid in erecting a new building, but present indications are that only the usual amount for maintenance will be granted, with the possible addition of $100,000. The Medico-Chirurgical Hospital receives the largest amount of any in this city.

Pennsylvania Epileptic Hospital.—This institution, situated near West Chester, received but $2,500 appropriation from the State for the present year. The institution is really a farm where the patients who are able are given light outdoor employment. It is practically the only institution of the kind in the State and, although partly self-supporting, is greatly hampered by lack of funds.

Fourth-of-July Injuries.—Unusual efforts are being made by the authorities to prevent the usual large number of accidents on the Fourth of July. Dealers who sell crackers containing explosives other than ordinary powder are to be apprehended. The Mayor's proclamation also contains the following: "Peremptory orders have been issued to the police to arrest all persons exploding firearms, firecrackers, squibs, chasers, rockets or bombs in the neighborhood of any hospital, home, asylum, or institution for the sick, aged or infirm."

First Cousins May Not Marry.—The bill prohibiting the marriage of first cousins which was recently passed by the State Legislature became a law June 24th, it not having been acted upon by the Governor within the specified time limit. It is stated that Pennsylvania is the eighth State to adopt such a prohibitory law.

Removal of Almshouse.—In pursuance of the plan lately adopted a committee has recently inspected institutions in New York and Boston with the view of removing the Philadelphia almshouse and insane asylum from its present location at Thirty-fourth and Pine Streets. The Committee included Drs. Shoemaker, Tyson, Flexner, Hare, Horwitz, An-

ders, Ashton, and Kirby, as well as several members of the Department of Charities and Corrections. As a result, members of the Board are to make an inspection of the islands in the Delaware River with the view of determining which of them is the most suitable for the new site of the institutions named.

CHICAGO.

Baccalaureate Sermon By Dr. Senn.—Dr. Nicholas Senn delivered the baccalaureate sermon before the graduating class of Rush Medical College of 1901, June 16th. He took for his text the 48th verse of the tenth chapter of the Book of Numbers, "Standing between the dead and the living." He philosophized upon the mysteries of life and death, and then told of Jesus' power over death, as shown in the stories of the restoration of the daughter of Jairus and of Lazarus. He stated that it is the educated, earnest, conscientious physician who is constantly called upon to stand between the dead and the living. Every act on his part is an attack on the death-dealing influences which jeopardize life, and the struggle continues until human aid can no longer compete with the aggressive, relentless foe. Among the learned professions and different avocations of life there is none that requires greater and more careful preparation, and that imposes greater anxieties and self-sacrifice than the duties of the true physician. From the beginning to the end of his professional career he stands guard over the health and life of his clients. He is with them at the moment of their entry into this world, and he attends them until the destroying angel at last defeats his efforts. Like the Great Physician, like Him who is the Resurrection and the Life, he is always found, "standing between the dead and the living." Dr. Senn eulogized the work of physicians in times of plagues and of war, and paid a tribute to the profession.

Important Medical Decision.—Judge Kavanagh recently announced a decision which is of unusual interest to members of the medical profession. In directing a verdict of not guilty in the suit of Mrs. Agnes Mulhern, against the Post-Graduate Medical School and Hospital, the Judge holds that a physician, while performing an operation for the relief of one ailment, is justified in performing an additional operation, if during the first operation he discovers a condition of the internal organs which renders the additional operation necessary to preserve the life of the patient. Mrs. Mulhern submitted herself to an operation for hernia at the hands of Dr. Franklin H. Martin, June 7th, 1897. After the abdomen was opened, the surgeon discovered that other internal organs were diseased. The patient being under the influence of the anesthetic, her consent to a further operation could not be obtained. He, therefore, performed another operation. Later, suit was begun against the attending physicians and the hospital, because of the second operation. The point that the second operation was necessary to preserve the life of the patient, whose general health is now good, was raised in pleas filed for the defendant by attorneys. An appeal was prayed to the Appellate Court from the ruling of Judge Kavanagh. The State Supreme Court, as yet, has not passed on the point directly raised in this case.

New Hospital in Operation.—The Hospital of the Sisters of St. Francis in Evanston has been opened for the reception of patients. No questions will be raised as to race or religion. The Hospital is almost on the borders of Chicago, and is within easy reach of the various suburbs. Dr. J. B. Murphy is the consulting surgeon. The physicians are Drs. E. H. Webster, W. A. Phillips, W. B. Parkes, D. Kaufman, and Dr. Fintzel. Dr. S. V. Clevenger is the consultant on mental and nervous diseases and Dr. James W. Collins on eye and ear diseases.

Wesley Hospital.—This Hospital was opened informally recently at a cost of $210,000. More than one hundred people have made donations toward the building fund, contributing a total of $185,000. Of this amount the largest part has been subscribed by a few men. The Trustees are making an effort to raise the $25,000 balance.

Chicago Medical Society.—at the forty-ninth annual meeting of this Society, the following officers were elected: President, Dr. Christian Fenger; First Vice-President, Dr. Alexander Hugh Ferguson; Second Vice-President, Dr. Hugh T. Patrick; Secretary, Dr. Frank X. Walls; Treasurer, Dr. David Doherty; Necrologist, Dr. W. S. Christopher. The annual address of the President was delivered by Dr. James H. Stowell. The Society now numbers more than a thousand members. Among other things, the President recommended that the Society publish its own proceedings, and avail itself of the valuable fund that would accrue from legitimate advertising, as well as the satisfaction of having the proceedings of each month published promptly. He also recommended that the Society take a more active part in matters of public and professional interest, and, if possible, aid the Commissioner of Health of Chicago in bringing about reforms that directly or indirectly affect the health of the community. He urged retrenchment in the expenses of the Society in order to establish a fund toward securing a permanent home for the Society, and recommended the appointment of a committee on permanent home. At this meeting an address on "The Streptothrix Infections" was delivered by Dr. John H. Musser of Philadelphia, by invitation.

Laying the Corner-Stone of the Senn Hall.—The exercises incident to the laying of the corner-stone of the Senn Hall were held June

19th. The stone block was lowered upon the mortar, and Dr. Senn helped the laborers drag it home. In the hermetically sealed metal box which was placed in the corner-stone were deposited photographs of Dr. Senn and Dr. Daniel Brainard, the Chicago daily papers, the University of Chicago and Rush Medical College calendars, the list of faculty members, and a copy of the *Journal of the American Medical Association.*

Appointment of Dr. Hunter.—Dr. Warren H. Hunter has been appointed County Physician by the Board of Commissioners of Cook County.

To Enlarge German Hospital.—This hospital will be enlarged by a building to cover an additional frontage of 75 feet, and to cost $40,000.

State Board Examinations.—These were held a few days ago by the State Board of Health at the Great Northern Hotel. About 125 candidates for license to practise medicine in the State appeared.

Commencement Exercises of Northwestern University.—The forty-third annual commencement exercises of this University were held June 20th. The Northwestern University Medical School graduated a class of 74 and the Woman's Medical College, 19.

Commencement Exercises of Rush Medical College.—The exercises were held at the Studebaker Theatre June 21st. There were 191 students in the class of 1901 who received the degree of M.D. The Doctorate Address was delivered by Professor Richard Burton of the University of Minnesota. The honorary title of Master of Surgery was conferred on Dr. Nicholas Senn. The award of fellowships and prizes was announced as follows: Fellowship in Pathology, Ludwig M. Loeb; Fellowship in Chemistry, Herbert G. Vaughan; Fellowship in Medicine, Alexander F. Stevenson; Edward L. Holmes Scholarship at Wood's Hall, Martin H. Fischer; Benjamin Rush Medal, Leslie Rutherford; J. W. Freer Medal, Robert J. Gay, Class of 1902; De Laskie Miller Prize, Paul Oliver.

GENERAL.

Tuberculosis Among Samoans.—Commander Tilley, the Naval Governor of Samoa, in view of the alarming extent of sickness, particularly among young children, has suggested that American nurses would find Samoa an exceptionally good field for their humane work. He says that in one respect civilization has worked to the detriment of the Samoans. While they lived without clothing they were hardy and free from sickness, but since adopting clothing they get wet from rain, contract colds, and a number have developed consumption, a disease not known before.

Officers of the American Orthopedic Association.—The following officers of the American Orthopedic Association were elected at the recent meeting held at Niagara Falls: President, H. Augustus Wilson, M.D., Philadelphia; First Vice-President, William J. Taylor, M.D., Philadelphia; Second Vice-President, G. G. Davis, M.D., Philadelphia; Secretary, John Ridlon, M.D., Chicago; Treasurer, E. G. Brackett, M.D., Boston. Philadelphia was chosen as the place of the next meeting in May, 1902.

Medical School Destroyed.—During a recent heavy thunderstorm a bolt of lightning struck the College of Physicians and Surgeons, on Harrison Street, Chicago, Ill. The fire which followed the lightning in a short time destroyed the college building, which is one of the finest of its kind in the West. The College of Physicians and Surgeons is the medical department of the University of Illinois, situated at Champaign. The loss on building and equipment is practically total and will approximate $200,000.

Plague at Hongkong.—The plague has broken out in virulent form at Hongkong, according to recent news, and every port in the Orient is taking protective measures. Two steamers are quarantined at Nagasaki owing to the plague having been brought from Hongkong on them. One is the "Empress of China," the other the transport "Kintuck," upon which a Chinese fireman died of plague. The "Kintuck" has 180 United States soldiers and sixteen officers on board returning from the Philippines. A British steamer arrived at San Diego, Cal., June 24th, having sailed from Hongkong May 16th. Five deaths from plague occurred during the voyage. At Hongkong 542 Asiatics and seven whites have died since the beginning of the year.

London Antivivisectionists.—The activity and bitterness of the antivivisectionists was well shown last Sunday when the annual collection for hospitals was taken up. They had boys posted in front of many churches distributing circulars protesting against the collection as they gave aid to vivisection. The President of the Antivivisection Society, Lord Llangattock, has seen fit to defend this action in the press. The collections, however, were as large as ever, and the Lord Mayor has tactfully calmed the indignant protestants.

Lord Lister's Address on Asepsis.—The notable address delivered by Lord Lister at the opening of two new operating theaters in St. Thomas' Hospital dealt with the progress of surgery and the evolution of antiseptic and aseptic technic. In the new rooms the aseptic system will be used instead of the antiseptic, and, though admitting the good thus accomplished, Lord Lister continues to practise Listerism in the old way and to advocate carbolic immersion of instruments and the use of sprays.

Homeopaths and the Army Medical Service.—There is a good deal of feeling over the fail-

ure of the United States Government to make provision in the army for homeopathic surgeons. Surgeon-General Sternberg, United States Army, is said to be in sympathy with such a movement.

Faculty of Army Medical School.—The following officers have been detailed as members of the faculty of the Army Medical School: Col. William H. Forwood, Assistant Surgeon-General, President of the faculty, *vice* Col. Charles H. Alden, retired; Col. Calvin de Witt, Assistant Surgeon-General, professor of military medicine; Major John Van R. Hoff, surgeon, lecturer on the duties of medical officers in war and peace; Major William C. Borden, surgeon, professor of military surgery, *vice* Col. Forwood, designated as President of the faculty; Major Frederick P. Reynolds, surgeon, as instructor in hospital corps drill and first aid to wounded, *vice* Capt. George D. DeShon, relieved.

Washington State Medical Society.—The following officers were elected for 1902: President, Dr. J. W. Bean of Ellensburg; First Vice-President, Dr. F. H. Coe of Seattle; Second Vice-President, Dr. H. B. Luhn of Spokane; Secretary, Dr. A. H. Coe of Spokane; Treasurer, Dr. J. B. Eagleson of Seattle. Place of meeting, Tacoma.

Quarantine Against Cuba.—A strong disposition has been manifested by the local quarantine authorities of New York and by the Marine Hospital Service to remove the restrictions that have existed so long for persons arriving at this port from Cuba. It is admitted that no danger can arise from their admission if they remain in the northern part of the country. But the impossibility of controlling the movements of individuals when once set free has determined Dr. Doty to continue the present rules at least during the current year.

Obituary.—Dr. E. E. Waite, one of the best-known physicians of New Bedford, Mass., died suddenly in that city on June 20th. He had been in poor health. He was about forty-three years old.

Dr. George Hosmer Magness died at his home at White Plains, N. Y., June 25th, after a long illness. He was born in New York in 1851. Dr. Magness was graduated from the Bellevue Hospital Medical College with the class of 1876. In 1879 he removed to White Plains and built up a large and lucrative practice. He was the physician to the Home of Nazareth and to the Sisters of Divine Compassion.

Dr. James W. E. Roby of Brooklyn died in St. John's Hospital, Long Island City, N. Y., after undergoing an operation. Dr. Roby was thirty-eight years old. He was born in New York and after being graduated from the University of New York in 1887, began to practise in the Eastern District of Brooklyn, and was very successful.

CORRESPONDENCE.

OUR LONDON LETTER.

[From Our Special Correspondent.]

London, June 15, 1901.

THE GENERAL MEDICAL COUNCIL—ITS COMPOSITION—ITS PRESIDENT—ITS MEMBERS—THE DIRECT REPRESENTATIVES—SOME PROMINENT FIGURES—THE FUNCTIONS OF THE COUNCIL—ITS STRENGTH AND ITS WEAKNESS.

Our professional Parliament, the General Medical Council, is now in session. It meets twice a year, and as each member receives a fee of twenty-six dollars for each day of attendance, there is a natural tendency to the prolongation of sessions. The money is provided by the medical profession itself, each member of which has to pay twenty-five dollars to get his name placed on the *Medical Register* of which the Council is the official custodian. There is a pretty general feeling, however, that the profession does not get any value for its money. Our Medical Council is probably the most costly legislative body in existence, and one of the most loquacious. Every member feels it a duty which he owes to himself as well as his constituents to speak early and often, and as very few of them have anything to say that tends to edification, the oratory is for the most part *vox et præteræ nihil.*

The Council is composed of elected representatives of the Royal College of Physicians and Surgeons in London, Edinburgh, and Dublin, of the Faculty of Physicians and Surgeons of Glasgow, of the Society of Apothecaries of London and of the Apothecaries' Hall of Ireland, and of the Universities of the United Kingdom, namely, Oxford, Cambridge, Durham, London, Victoria, Manchester, Birmingham, in England; Edinburgh, Aberdeen, Glasgow, St. Andrews, in Scotland; and the University of Dublin, and the Royal University of Ireland, in the Emerald Isle. Five members are nominated by the Crown, and five are direct representatives of the profession—three for England, and one each for Scotland and Ireland. The direct representatives are elected for five years by the votes of legally qualified members of the medical profession whose names are on the *Medical Register*. Their presence in the Council—which dates only some fourteen years back, whereas the Council has been in existence for over forty years—represents a victory of the democratic idea. The principle was bitterly opposed by the corporations and the universities who may be taken to represent the aristocracy in medical politics, but mainly owing to the efforts of the British Medical Association they were beaten. But, though perforce accepting the situation, they have never forgotten their defeat, and, like the French, they still dream of *la revanche.*

The Council is presided over by Sir William Turner, Professor of Anatomy in the University of Edinburgh, and a man whose high position in

the scientific world is shown by the fact that he was President of the British Association for the Advancement of Science in 1900. When the last President, Sir Richard Quain, departed this life there was a little difficulty about the election of a successor. Sir William Turner was the most prominent of the *papabili*, to borrow a phrase from the language of a conclave of a different kind; but it was objected that the fact of his living in Edinburgh would cause inconvenience. It was given out, however, that if elected to the presidential chair the Edinburgh professor would resign his chair as soon as he had served out the time required to entitle him to a pension. That time, it is understood, is past, but Sir William Turner seems to be in no hurry to vacate his chair which is estimated to be worth some twenty thousand dollars a year. He is not a Scot, but, like Richard Owen, a Lancastrian by birth. Nor is he a graduate of Edinburgh, having received his medical training at St. Bartholomew's Hospital and graduated at the University of London. He went to Edinburgh to be demonstrator of anatomy under John Goodsir and waited for his chair as long as Jacob did for Rachel. He is the dominant force in the Edinburgh Medical Faculty, and he brings a good deal of the dictatorial manner of the professor to the management of the General Medical Council.

Of the members of the Council the majority are professors, and consultants who know little and care less about the difficulties of the general practitioner. They live in a serene Olympus of academic dignity to which the cries of the doctors *à tout faire* struggling for their daily bread against the injustice of the law, the oppression of officials and the competition of quacks, reach only as a confused murmur mellowed by distance. The direct representatives are supposed to be champions of the general practitioners, but, in the first place, they are numerically a negligible quantity in the Council, and, moreover, they are of little weight personally. It must indeed be admitted that direct representation has so far not been a conspicuous success. This is due mainly to the indifference of the bulk of the profession which has had the result of leaving the elections practically in the hands of the rabble. Hence the profession in England finds itself represented in the General Medical Council by Mr. Victor Horsley who, deservedly eminent as he is in his proper scientific sphere, is in his medico-political aspect a blatant demagogue; by Mr. George Brown who may be described as in manner and tone as well as in purpose the equivalent of the labor representatives in the House of Commons; and Dr. J. G. Glover, a highly respectable family doctor who has for many years played the part of a kindly leading light to the *Lancet*. They are, like Brutus, honorable men, but with the exception of Dr. Glover they have no weight with the better classes of the profession of which they represent the baser elements. Scotland is represented by Dr. William Bruce of Dingwall, of whom, as of "poor Fred" in the epitaph, "there's nothing to be said"; and Ireland, by Sir William Thomson, a man of real distinction who has been President of the Irish College of Surgeons and who did right good work in South Africa as chief of the Irish Hospital in Pretoria. Of the direct representatives he best fulfils the idea of the character. He is a man of high intelligence who commands the respect of the whole profession, a stout but chivalrously fair fighter who can hold his own in debate without violence and scurrility; last but not least he is a gentleman. The direct representatives, few as they are, might do something if they held together. But they are incompatible elements, and the inevitable result is that they form an inert mass, liable to explosions akin to those of the "mad-volcanoes" spoken of by Carlyle.

Of the other members of the Council, the most active and able, is Dr. Donald MacAlister, the representative of the University of Cambridge. Dr. MacAlister had a university career of meteoric brilliancy and might have won the highest prizes at the bar; people were amazed, therefore, when he subsided into medicine. Bringing so exceptionally well-stored a memory and so thoroughly trained a mind as he did to the study of medicine, it might have been expected that he would have shed light into many dark places. But his scientific achievement has been infinitesimal, and as a practical physician he has hitherto failed to make any great reputation. Perhaps he has not exerted himself to do so. He has a versatile mind, and it might be said of him that he knows everything, even a little medicine. He holds a considerable position in his University, and in the Medical Council his clearness of head and grasp of business make him a power. He is the *bête noire* of Mr. Victor Horsley, the tempest of whose passion often dashes itself in foaming impotence against the rock of Dr. MacAlister's solid sense.

Among the other members the most interesting figures are Sir William Gairdner, formerly Professor of Medicine in the University of Glasgow, the very type of the philosophic physician, who can discourse with the copiousness of a full mind *de omni scibili* in medicine, and can bring the most multifarious knowledge and illustrations drawn with equal ease from Greek philosophers and American humorists to elucidate any given problem; and Sir Dyce Duckworth, the representative of the London College of Physicians, who should have lived in the days of full-bottomed wigs and gold-headed canes, and whose tone and manner seem to say,

> "I am Sir Oracle, and when I ope
> My mouth, let no dog bark!"

The Medical Council is entrusted by the State with the charge of medical education and registration, and, moreover, has certain disciplinary powers over members of the profession who are proved to be guilty of conduct "infamous in a professional respect." "Infamy" may attach to any deviation from the straight path of profes-

sional rectitude from advertising to abortion. An offence which smells with special rankness to the heaven of the Council is "covering," that is, an arrangement whereby an unqualified person practises medicine under the umbrella of one that is qualified. This device is still common, though the Council has done something toward its repression. It has abolished the unqualified assistant who used to have a recognized place in country practice, doing the cheap midwifery and the rough surgery, visiting the lower class patients and dispensing medicines, for a remuneration of five to six hundred dollars. He had from the employer's point of view, the advantage that he was cheap and that he could not start in opposition to his master. A few years ago a decree went forth that the employment of unqualified assistants would be treated as "infamous." It was undoubtedly a right thing to do in the interest both of the public and of the profession; but it was done with a want of consideration for the unfortunate persons thus suddenly turned adrift that smacked of the harshness of trade-unionism. The effect of the measure has been that practitioners have now to employ qualified labor at about double the price they paid for the unqualified, and they complain that they find the young graduates full of book learning, but in practice much less efficient than the humble drudges whom they have displaced.

The action of the Council in suppressing the unqualified assistant shows at once its strength and its weakness. It was able to prevent the registered practitioner from employing an unqualified assistant; but if the latter chose boldly to set up on his own account as a quack, the Council could do nothing to prevent him, as the only punishment it can inflict is removal from the *Medical Register*. In fact, the Council has no power to prosecute quacks, and this is one of the points in which reform is needed. But if the Council were to ask Parliament to grant it larger powers, it is not at all likely that it would get them. The little regard in which the Medical Council is held by the Legislature is shown by the snubs recently administered to it, as related in previous letters. There is a strong anti-medical feeling in the British Parliament at present, which is doubtless largely due to the criticisms which have been so freely made as to the treatment of the sick and wounded in South Africa. This matter will probably come up for discussion in the House of Commons at an early date, when it is to be hoped that one or other of the medical members will deal frankly and fully with Mr. Burdett-Coutts' charges. But in the meantime the feeling which these have roused would make it impossible to get Parliament to pass any bill tending to create a monopoly for the medical profession, or to increase the privileges which it already possesses. There would be a serious chance of any attempt in that direction leading to a relaxation of the existing law regulating medical practice, lax as that is, so that the last state of the profession would be worse than the first.

TRANSACTIONS OF FOREIGN SOCIETIES.

British.

PURE MILK—OMENTAL GANGRENE—PERFORATED GASTRIC ULCER—OVARIAN CYSTOMA—VARIOUS TYPES OF GASTRIC ULCER.

CROWLEY, at the Bradford Medico-Chirurgical Society, May 21, 1901, discussed the importance of a pure milk in communities and described two rather efficacious procedures. One system was working at St. Helen's and Liverpool and consisted briefly in humanizing and sterilizing selected cow's milk, bottling it in quantities for single feedings and delivering a day's supply at a time. The workings of the Manchester Pure Milk Supply Company were a little more thorough. The milk was accepted only from certain farms where the cows were frequently inspected, their hygiene looked after and frequent inoculations with tuberculin carried out. The farmers and their help are also under the control of the Company. If any infectious disease appears in their midst, the milk is refused from that farm until the case is cured and a safe interval of time has elapsed to make the milk healthful and not a possible source of infection. The loss to the farmer meanwhile is made up fully by the Company. The milk is taken to the Company just as soon as possible after being drawn, and there it is carefully strained, cooled and bottled, but not sterilized or humanized. Deliveries are made in daily or half-daily supplies. The great importance of securing pure milk can not be exaggerated. Perhaps in the long run it will be advisable to put the entire milk traffic in the hands of the Government.

J. B. BERRY related the details of three celiotomies. The first was performed on a woman forty-three years old, multipara, who for some time (not definitely known) had suffered from abdominal swelling. During this process she became pregnant and was normally delivered of a full-term child. About fourteen days thereafter the swelling increased and tapping was necessary and had to be done several times. Upon finding the fluid each time more and more foul, a celiotomy was considered advisable, and revealed a walled-off cavity in which a large portion of the omentum was found gangrenous; this was separated quite easily and a large quantity of foul fluid evacuated. The cavity was washed out, drained freely and a wet outer dressing was applied. Slow but perfect recovery followed. The second patient was a seventeen-year-old girl who came under treatment for perforated gastric ulcer. The onset was hyperacute, while she was at work, with pain in the abdomen, faintness and vomiting. When first seen she had abdominal distention, thoracic breathing, pulse 98, temperature 100° F., pallor and shock. Twenty-nine hours after the beginning of the symptoms she underwent celiotomy. A small perforation admitting a probe was found in the lesser curvature of the stomach and closed by a double row of Lembert's sutures. The abdominal cavity was cleansed, but not

flushed. A complete recovery followed. In the third case, a woman had a large ovarian cystoma, which when emptied was found to have held seventeen and a half pints of turbid fluid. A straightforward recovery followed.

MR. HALL read a paper on the subject of gastric ulcer and its various types. Of these he thought there should be three, namely, the hyperacute or fulminating, the subacute or insidious, and the cases with localized abscess, the perigastric abscess of some writers. This classification is exactly parallel with that usually adopted to distinguish the forms of appendicitis. In the hyperacute cases no opportunity is given for any walling-off by the general peritoneum. In the subacute cases diagnosis is often very difficult and obscure. With localized abscess, we know the perforation has occurred and the peritoneal cavity has been protected, because the process has been slower. In the subacute cases a very safe rule to adopt will be that after careful physical examination and watching, if in doubt, explore. Of course, occasionally this will lead to operation when one might have been avoided, but the number of such will be far less than of those whose lives will be entirely saved by the procedure.

SOCIETY PROCEEDINGS.

AMERICAN MEDICAL ASSOCIATION.

Fifty-Second Annual Meeting, Held at St. Paul, Minn., June 4-7, 1091.

SECTION ON MATERIA MEDICA, PHARMACY AND THERAPEUTICS.

Experimental Work in Intra-organic and Venous Injections in the Cure of Acute Organic Diseases.—The first paper was one on this subject by Dr. W. B. Coakley of Chicago, It dealt largely with saline solutions, which he contended had a very definite and useful place in practical therapeutics, although it was well known that exaggerated claims were made in regard to their efficiency in prolonging life and otherwise. Injections might be made into quite a number of organs without producing untoward symptoms, and the physiological experiments showed remarkable results in the way of restoring animation to animals in a state of collapse.

The Neglect of Valuable Therapeutic Measures.—This was the subject of a contribution by Dr. G. F. Butler of Chicago. Medicines and therapeutic agencies generally, he showed, were subject to fashion, and many useful remedial measures were neglected because of prejudice or the influence of commercial interests. Bloodletting, the use of normal salt solutions, counterirritation, complex prescriptions, hydrotherapy, massage, mechanotherapy, dietetics, suggestive therapeutics and physical culture had all received less attention than they deserved, in some cases because of the reaction against them caused by their having been carried too far, and the result was that a large field of natural therapeutics had been left to Faith Curists, Christian Scientists, Osteopaths and others, who had not hesitated to turn them to the greatest possible account.

Therapeutic Indications Presented by the Conditions of the Blood in Disease.—Dr. O. T. Osborne of New Haven, Conn., read a paper with this title. He contended that in the blood might often be found a key to the doubts that existed as to whether a patient would recover or not, and on this and other accounts he entered an earnest plea for greater attention to this department of investigation. He gave details of a number of interesting experiments he had made on dogs, and also reported the results obtained in different diseases on the human subject.

Chronic Myocarditis.—This paper by Dr. J. H. Musser of Philadelphia will appear in an early issue of the MEDICAL NEWS.

The Treatment of Obesity.—This subject was presented in a paper by Dr. Heinrich Stern of New York. He said that obesity was generally to be regarded as symptomatic, and therefore each case should be studied individually with the view of discovering its actual character and the causes that were responsible for it. Much harm was done by many of the methods in use for reducing corpulency.

The Treatment of Neurasthenia.—Dr. H. N. Moyer of Chicago in this paper said there was, he thought, a widespread misapprehension among members of the profession as to what constituted neurasthenia. It was frequently confounded with hysteria and hypochondria. There would be no objection to this confusion if the treatment was the same, but he believed that the failure to distinguish one from the other accounted for the large number of failures that took place in the treatment of neurasthenia. Correct diagnosis, therefore, in his opinion, was of primary importance. The distinctive feature of neurasthenia was the symptom of fatigue. If that symptom was absent it might be assumed that there was no neurasthenia. Hysteria never presented this symptom, and hypochondria was always founded on a pure delusion. A distinction ought also to be made between primary and secondary neurasthenia, and he would never determine that a case was primary until all possibility of its being secondary had been eliminated by process of exclusion. In primary neurasthenia, the rest cure was very effective, but in secondary neurasthenia, unless properly modified, it frequently did harm. The habits of life of every patient should be carefully regulated, and hydrotherapy ought never to be neglected. In regard to drugs, he differed from some of his associates by making strychnine his sheet anchor, and he also got good results from cannabis indica, the object of giving these drugs

being to produce a desired psychical state in the patient, but nothing more. It was a species of suggestion, and in the same connection he said the larger the dose of the doctor a neurasthenic got and the smaller the doses of medicines, the better it would be for him. He did not advise hypnosis and would not practise it, but the patient should be encouraged to think he was getting better. Cases of hysteria, he admitted, might develop into neurasthenia, and such cases were peculiarly difficult to deal with. He would not attempt to lay down a diet suitable for any group of cases, believing that each individual must be treated according to conditions and circumstances, but he placed a great deal of reliance on milk, using it when necessary in modified form.

Standardization and the Pharmacopœia.—Two papers were read on this subject, the first by Dr. C. F. Wahrer of Fort Madison, Iowa, being entitled "A Plea for More Uniformity and Strength in Our Armamentarium," while the second, by Dr. A. B. Lyons of Detroit, Mich., dealt with "The Standardization of Crude Drugs and Galenical Preparations." Dr. Wahrer said his views might be regarded as Utopian, but it was only by continually agitating this subject that they could hope to effect any improvement on the present unsatisfactory state of affairs. Physicians now knew more about the etiology of diseases and were better able to make a correct diagnosis than they were formerly; but he was afraid the question, Has therapeutics kept pace with advances in other branches of medical science? must be answered in the negative. This was not because the pharmacist had been idle, since many new remedies of undoubted value had been introduced. The misfortune was that they had no guarantee as to the quality of the drugs they made use of in fighting disease. Even the Pharmacopœia was open to criticism on the ground that it did not make adequate provision for the uniformity and strength of remedies that were officially recognized. This fact coupled with the cupidity and dishonesty of many manufacturers and the ignorant and careless making-up of prescriptions made the outlook for the sick man anything but cheerful. It was of little use for physicians to be able to make a correct diagnosis and know the proper remedy to prescribe, so long as they were ignorant of the quality of the drugs that were used in making up their prescriptions. He was far from wishing to reflect on manufacturing houses of high ethical standing, such as several he mentioned. It was well known, however, that there were other concerns which were continually forcing new remedies, often claiming to be specifics, on the attention of the profession. What was worse, the profession bought these drugs, and wrote testimonials in their favor, some of those who did so being professors in medical colleges with pretensions to high standing. No matter who they were, he thought all those who endorsed nostrums should be dismissed from their positions, and left free to devote all their time to the exploitation of the so-called remedies with which they had allowed their names to become associated. He thought that a body like the American Medical Association could do much toward bringing about a more satisfactory state of affairs, and he suggested that a committee be appointed for the purpose of trying to get the Pharmacopœia amended in such a way as to ensure the standardization of drugs and legislation passed by Congress to prevent adulteration.

Dr. Lyons, after making some complimentary remarks about the paper just read, gave illustrations of the extent to which vegetable drugs varied in medicinal activity, and argued that scientific medication required that preparations made from them be brought to some uniform standard of strength. Individual manufacturers supplied standardized preparations, but many of their assay methods were confessedly imperfect. Standardization by these methods was better than none, but it would be infinitely better if one set of standards was set by the Pharmacopœia. In the recent revision of that work, it was much to be regretted that standardization by physiological test had been ruled out.

Dr. C. S. N. Hallberg of Chicago, in discussing the papers, while in favor of drugs being standardized as far as possible, said it was difficult to apply any uniform rule so long as the active principle of certain drugs, such as aconite and digitalis, remained unclearly defined.

Dr. F. G. Wulling of Minneapolis, as a practical pharmacist, admitted the difficulties in the way of universal standardization, but at the same time contended that much might and ought to be done to bring about more uniformity than at present existed. Physicians, he thought, were equally to blame with pharmacists, and he suggested that they should make themselves more familiar with the contents of the Pharmacopœia and with materia medica generally, so as to be in a position to rely more on their own prescriptions and less on readymade preparations. The medical schools, in his opinion, ought to make the Pharmacopœia one of their text-books, and pay more attention to the teaching of materia medica and pharmacy.

The Chairman, as a member of the Committee charged with the revision of the Pharmacopœia, said he had always wished that the work could be changed in such a way as to make it interesting and practically useful to physicians. With a view to this he was in favor, on the one hand, of the exclusion of a great deal of matter that was now retained simply because the remedies it referred to were still used in certain parts of the country, though they had ceased to be used by the pro-

fession generally, and, on the other hand, he advocated the inclusion of information in regard to new remedies. It was the latter particularly that the physician wanted to know about, and reliable information should be furnished in regard to them irrespective of whether they had been standardized or not. They might be placed in an appendix, or otherwise distinguished from other drugs. What was important was that the Pharmacopœia should be a real encyclopedia of medical knowledge.

The Treatment of Pulmonary Tuberculosis.—A symposium on this subject was contributed to by Dr. S. E. Solly of Colorado Springs; Dr. Norman Bridges of Los Angeles, Cal.; Dr. Arnold C. Klebs of Chicago, and Dr. A. Burroughs of Asheville, N. C.

Indication for and Utility of Altitude Treatment.—Dr. Solly in his paper on this subject said that the climate of Colorado was intermediate between the cold that prevailed in the Alps and in some parts of Canada and the warm temperatures of New Mexico and Arizona. In considering the choice of places to which to send patients, it was necessary to take into account the general health, and the nature of the tuberculous disease, as well as the extent to which it had advanced. The cases that did best in high altitudes were primary cases, those that appeared like lightning from a clear sky without any obvious cause. He hoped the new sanitaria would lead to more scientific study of cases in their earlier stages and a better selection of the patients who were sent to different regions for climatic change.

The Adaptability of Southern California and Similar Climates to the Needs of Consumptives.—Dr. Bridges' claims for the region referred to were its relative dryness, the small rainfall, the large amount of sunshine, the fact that it had both high and low altitudes, and the mildness of the climate all the year round, which permitted patients to spend a large proportion of their time in the open air. Dr. Bridges also read a paper on "The Proper Management of the Tuberculous Lung," in which he maintained that the best course to pursue was to give the affected lung rest, and that this could be done most satisfactorily by means of external fixation.

Specific Therapeutics in Pulmonary Tuberculosis.—Dr. Klebs in his paper reviewed the culture products and serums used in the treatment of the disease, and also discussed the merits of pharmaceutic preparations of alleged specific value, the conclusion at which he arrived being that there was no drug possessed of specific virtues so far as tuberculosis was concerned, and that the best course for the general practitioner was to follow as far as possible the dietetic and hygienic treatment practised in the sanitoria.

Nineteen Years' Experience with Creosote.—Dr. Burroughs advised giving this drug in large doses and continuing it two years after all symptoms had disappeared. In his opinion no other medicine gave such good results in the treatment of tuberculosis.

Treatment of Pneumonia.—Dr. De Lancey Rochester read this paper in which he contended that, as the main factor in the disease was toxemia and no effective antitoxin had yet been discovered for counteracting its effects, medicines should be given for the purpose of eliminating the poison by natural means.

Gastric Disorders.—Dr. Boardman Reed of Philadelphia, opened a symposium on gastric disorders by reading a paper on "The Influence of Certain Common Remedies upon Gastric Functions." He showed that organs which were acting normally were liable to derangement by drug stimulation, and that a great deal of harm was done by the indiscriminate taking of medicines which were supposed to be harmless. Experiments he had made showed that hydrochloric acid and pepsin, when given separately, each tended to impair digestion, whereas given together they improved it.

The Treatment of Gastric Ulcer.—This was the subject of a paper by Dr. Gustav Fütterer of Chicago. There was always danger, he said, of ulceration of the stomach being followed by carcinoma. Nor was it always safe to assume that the disappearance of the symptoms meant that this danger had passed. Therefore the patient must be kept under observation for some time. As to treatment, he gave beef-juice properly prepared direct from the beef, and insisted on the patient getting absolute rest. Where there was any serious obstruction, he was in favor of an early gastro-enterostomy.

The Treatment of Hyperesthesia.—Dr. Charles G. Stockton of Buffalo said it was a mistake to regard hyperesthesia as a disease of the stomach, as it was in reality a derangement of the organism of which the stomach was the index. In reference to treatment, he advised the giving a slight diet of milk, farinaceous foods and eggs. Hydrotherapy was of great use and electricity could also be employed with advantage.

Dr. J. B. Herrick of Chicago complimented Dr. Fütterer on the useful work he was doing by investigating the character of gastric ulcers and ascertaining the different complications to which they gave rise. Clinical experience confirmed the results obtained experimentally, showing that cases in which the blood was deficient were the most likely to develop carcinoma. He agreed with Dr. Fütterer as to the advisability of early operation in the cases he had referred to, and he also agreed with him in regard to general treatment, except in this respect that he relied more on milk than on beef-juice, and when the patient was beginning to improve he added a little iron. Dr. Osborne observed that they could not be too careful in guarding against the common mistake of treating hyperesthesia as dyspep-

sia; Dr. McCoy of Duluth called attention to the special need there was in such cases to see that the food of the patients was properly prepared, and Dr. Boardman Reed said that the word "dyspepsia" had been much abused and it would be well if it were abolished altogether.

Organotherapy.—Papers under this head were read by Dr. Sydney Kuh of Chicago; Dr. John M. Dodson of Chicago, Dr. E. M. Houghton of Detroit, and Dr. Jokichi Takamine of New York. Before they were taken up, the Secretary read an abstract of a contribution which had been sent in by Dr. S. Solis-Cohen of Philadelphia on "The Theory and Practice of Organotherapy."

Dr. Kuh's contribution consisted of a report of cases in which acromegaly had been successfully treated with pituitary body, and Dr. Dodson's of a report of cases where the thymus extract had been effective in the treatment of Graves' disease.

Dr. Houghton described the pharmacology of the suprarenal gland and a method of assaying its products. He made special mention of adrenalin, the active principle of the suprarenal gland recently discovered by Takamine, and stated that it was 600, 800 or perhaps 1,000 times as strong as the ordinary aqueous solution of the gland.

Dr. Takamine gave a detailed account of the efforts that had been made by previous investigators to isolate the active principle, and of the partial success which had been obtained by several of them, notably Fürth and Abel. He gave full credit to these gentlemen and others for what they had done, but at the same time maintained that in adrenalin the active principle of the gland had for the first time been isolated in a free, basic, crystalline form. The physical and chemical properties of the product, the method in which it was prepared, its physiologic activity and the therapeutic uses to which it had been successfully put were also described by the speaker.

Dr. Victor C. Vaughan of Ann Arbor said Dr. Takamine was to be congratulated on having carried to a successful termination the efforts to solve a problem which had for so long a time engaged the attention of some of the most eminent men in this country and in Europe. There could be no doubt at all as to the utility of the extracts of different glands, and it was impossible to foresee what the next few years might develop in connection with organo and serum-therapy. Personally he had obtained extraordinary results from adrenalin in the treatment of long-standing hemorrhages.

Questions in regard to the properties of the drug having been put by several members of the Section, Dr. Vaughan said that he had not found that it had any untoward effects even when used daily for so long a period as three months. Dr. Houghton said that experiments were in progress with the view of deciding some points that were still unsettled. Dr. Takamine said he had confined himself to the chemical work of isolating the active principle; it was for physicians to test the drug and determine its therapeutic value.

A paper by Dr. B. T. Whitmore of New York on "America's Contribution to Medical Science" was read by title, which brought the literary part of the proceedings to a close.

Dr. George F. Butler of Chicago was elected Chairman of the Section for the ensuing year, and Dr. C. S. N. Hallberg of Chicago, Secretary.

BOOK REVIEWS.

CHRONIC URETHRITIS OF GONOCOCCIC ORIGIN. By J. DE KEERSMAECKER and J. VEERHOOFEN. Translated and Edited by LUDWIG WEISS, M.D. William Wood and Company, New York, 1901.

IT is always a difficult task to adapt any work treating upon highly specialized subjects to the needs of the general practitioner. In that respect, Dr. Weiss' excellent translation of De Keersmaecker and Veerhoofen's admirable work must fail. The reason is made plain in Oberländer's preface, *viz.*: "The study of urethroscopy is long and laborious, indeed. . . . In the work which Drs. De Keersmaecker and Veerhoofen now present to the medical public, they have exposed with distinctness the principles of urethroscopy. Its study will thus become an almost easy matter for him who is willing to devote to it the necessary time, for he can only attain it by perseverance and after having attentively examined a large number of patients." Known for some years favorably to those who understand French, it is now presented in English, and must prove a valuable and desirable addition to the specialist's library. For the general practitioner, however, it is no more available now than in the original.

Of the contents, the chapter on the Anatomy of the Urethra is good, and that on the Pathology excellent; those dealing with urethroscopy bring that subject up to date, and are clear and complete; that upon Urethral Asepsis is very good, and that on Gonorrhea and Marriage rational and well worth reading. While the original chapters on treatment still contain much that is old, that by the editor on modern methods serves, in a measure, to remedy this defect. We regret, however, to see so little reference to the rôle of the prostate in the causation of chronic urethritis. A large percentage of all cases of gonorrhea show an involvement of the posterior urethra (in most of these this is equivalent to a gonorrheal prostatitis), and that these are among the most intractable should lead us to realize the enormous possibility of continuous re-infection of the urethra from this source. The book does not, therefore, by any means solve the problem of chronic gonorrheal urethritis.

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MEDICAL NEWS.

A WEEKLY MEDICAL JOURNAL.

Vol. LXXVIII. No. 26. Whole No. 1485. NEW YORK, SATURDAY, JUNE 29, 1901. Per Annum, $4.00. Per Copy, 10 Cents.

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Medical Echoes.

Phonographs for Nervous Depression After Anesthesia.—Dr. Laborde has described to the Academy of Medicine of Paris a method of extracting teeth without pain and with the accompaniment of sweet music. The patient is put under the influence of gas after his ears have been connected with the tubes of a phonograph, which is rolling off gay tunes. The idea of this dentist was inspired by the fact that when the gas begins to act on the patient it generally causes terrifying nightmares, which are connected with sounds in the room or on the street. By drowning all these sounds with music such nightmares would be avoided.

Dr. Laborde suggests that this method might be employed with beneficial effects in operations which are conducted under ether or chloroform to do away with the risk of the after effect of nervous depression.

Complete Sterilization Causes Death.—French investigators have put guinea pigs through a thorough course of sterilization with fatal results, and the inference is that an unsterilized world somehow has in it elements of vitality that cannot be put away with impunity. MM. Charpin and Guillemonat have reported their experiments to the Académie des Sciences of Paris. They took twenty-seven guinea pigs, put them in disinfected cages, fed them with sterilized food and allowed them to breathe only sterilized air, and nineteen of the twenty-seven died. Of twenty-nine other pigs, treated as nearly as possible like the others save that no attempt at sterilization was made, only ten died. The first lot also lost much more weight than the second.

Who Really Was to Blame?—*The New York Medical Journal* publishes this erratum: "In our list of births, marriages and deaths, published last week, it was announced that a son had been born to Dr. and Mrs. S. Nelson Irwin, whereas we learn now that it was a daughter. The error was not ours."

Congenitally Lacking Eyelid Supplied.—Fourteen-year-old Joseph Cambardiel, of New York, born with a deficient left eyelid which prevented him from winking or entirely closing his eye, was operated upon at Fordham Hospital, Sunday. The surgeon cut a piece of skin about an inch square from his left cheek, which he applied to the lad's left eyelid, one end being allowed to remain intact on the cheek, to continue the nourishment of the fragment.

One on the Doctor.—"No, I am not a Christian Scientist," said Kandor.

"But you believe in throwing physic to the dogs," remarked Dr. Krabbed.

"Not if it happened to be your physic and my dogs."

Curious Chinese Twins.—Curious Chinese twins are now being exhibited in Europe. Like the famous Siamese twins, they are joined together at the lower part of the chest. These twins are boys, and they were born in China a few years ago. They are of normal intelligence, and each weighs thirteen kilogrammes. Four years ago they had smallpox, the infection passing in twenty-four hours from one to the other. One day whiskey was given to one of them and yet it was the other one who first began to show signs of intoxication. They go to sleep about the same time, but it is possible to awaken one without arousing the other. They can walk and run with ease, and when they lie down they very quickly find a comfortable position. M. Chapot-Prévost, a scientist, who has given much attention to monstrosities of this kind and who successfully performed an operation some time ago on two girls who were similarly joined, recently examined these twins and concluded that the ligament uniting them could be severed without much, if any, risk. He therefore suggested that this be done, but those in charge of the twins said it was impossible, as it was the will of the Chinese god Khango that the boys should be born thus, and his will must be respected.

Says Dogs Have Appendicitis, and Shouldn't Eat Bones.—Dr. William Cooper Eidenmuller of San Francisco claims to have discovered, while performing an autopsy on the remains of a family pet, that dogs may be subject to appendicitis.

"When the animal died," said the physician, "I was not satisfied with the cause of his taking off and made a careful autopsy. I was assisted by a veterinary surgeon, and we had not been long at our task when it became evident that death had resulted from acute appendicitis.

"The animal had been ill for a year, and in reviewing his symptoms I can see that they were identical with those of humans who suffer from recurrent attacks of this disease. Of course I did not at first think of a dog suffering from anything of this sort. There was no record of such a disease among animals.

"Splintered bones caused my dog's death, and while I am not a veterinary, I have come to the conclusion that bones are not the best diet for canines."

Living Most Luxuriously.—"Is Sidney Spluggs putting on any airs since he came into his fortune?"

"Airs? I think so; he's had three surgical operations.